THE

HENDERSHOT

MOTOR MYSTERY



THE HENDERSHOT MOTOR MYSTERY

Compiled by Tom Brown

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THE HENDERSHOT MOTOR MYSTERY

by F. D. Fleming

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Today the world has forgotten a man named Lester Hendershot, who invented one of the most amazing motors of all time—a motor that ran without any detectable fuel input.

"LOOK, daddy, it won't work." Disappointment filled the voice of the chubby four-year-old as he placed the toy airplane in his father's lap.

The youthful parent picked up the toy and examined it with the practiced eye of a mechanic.

"Don't worry, son," he said comfortingly to the little fellow, "we'll build one that will work."

Later the father, whose name was Lester Hendershot, did build a toy airplane that worked. And the thing that made it work is today one of the most baffling mysteries in the entire field of invention. For the propeller of that toy airplane was turned by a tiny motor powered by neither fuel, spring, nor elastic band. It drew its power, so it was claimed, from the earth's magnetic field.

This was the first working-model of the Hendershot fuelless motor. Later, its story, like an exploding star, suddenly burst forth upon the front pages of every large newspaper in the country, shone brilliantly there for a few days, and just as suddenly passed into the limbo of things forgotten.

Why? Here was an invention that might have revolutionized the entire field of motive power; not only in aviation, but in the automotive, transportation, and industrial fields as well. Colonel Charles A. Lindbergh tested the motor at Selfridge Field, Detroit. So did Major Thomas Lanphier, Commandant of the Field. Both were very favorably impressed with the results of the tests. Pilots and mechanics at the Field who aided in the construction of the motor said they believed it to be the greatest invention of the age, and all appeared sure it would be a practical success as an airplane motor.

On February 25, 1928, The Detroit *Free Press* said in a copyrighted article that the powerful Guggenheim interests had arranged for an immediate conference with Lindbergh, Lanphier, and Hendershot. Other powerful groups of financiers were said to be intensely interested. And then suddenly, for Hendershot and his motor—oblivion. Again, why?

Let's look at the record. Lester Jennings Hendershot, who was twenty-nine years old at the time, lived in a little house next to the railroad tracks in West Elizabeth, Pennsylvania. Of formal schooling he had very little. Several years previously, however, he spent a few months at Cornell University, where he took courses in mechanics. A "free lance" worker, he was

never long employed in any particular job. At various times he worked as a fireman and an engineer on the railroad, inspected concrete, did electrical work, and worked in the mills near Pittsburgh. During the first world war he was a bugler with a machine gun company, but he did not get overseas.

During his early twenties, the idea of a machine which would operate from "earth currents" came to Hendershot in a dream. But it was not until November, 1927, that he started working to make that dream a reality.

His laboratory and workshop consisted of a crude work bench in the cellar of his home. He placed the bench near the furnace where it was warm. From early morning until late at night he could be found there working at his invention.

In a few weeks the miniature model was finished. It was constructed from the parts of a worn-out radio which his uncle had given him. It ran. He found, however, that it had one serious fault. It would always operate when pointed north and south, but would not turn a wheel when pointed east and west. Hendershot experimented for two years before he could overcome this defect.

The motor operated on the principle of a compass, Hendershot later explained. He always steadfastly maintained that there was no mystery connected with its operation. "The force that energizes it is the same force that pulls the needle of a compass around, and there is nothing mysterious about that," he stated flatly again and again. The revolutionary feature was a hitherto unknown manner of winding the armature.

Hendershot went on to explain that during his experiments he learned that by cutting the same line of magnetic force north and south he had an indicator of the true north—not the magnetic north of an ordinary compass. By cutting the magnetic field east and west, he found he could develop a rotary motion. He persevered until he had built a motor on that principle that would rotate at a constant speed, predetermined when the motor was built.

For several weeks the little motor rested in a toy airplane upon a small table in the living room of the Hendershot home. Then one day D. Barr Peat, of Bettisfield, the air mail port near McKeesport, Pennsylvania, heard about it. He came over to see the model and waxed enthusiastic at once. A few weeks later he and Hendershot were at Selfridge Field, where permission had been granted to build a model large enough to operate an airplane.

The model was built and tested. Those present at the tests were convinced that they had witnessed a *bona fide* demonstration of fuelless power and that they stood on

the threshold of a new era which it would bring to pass. Newspapers spread the story far and wide.

Orthodox scientists pooh-poohed the idea, at first. "Interesting if true," and "impossible practically," were the most frequent comments heard from them. Later they tore into it with a vengeance. Dr. Michael I. Pupin, Professor of Electro-Mechanics at Columbia University, pretty well summed up the opinion of his learned scientific brethren in his statement to the *Associated Press,* February 26, 1928: "According to my knowledge of science I cannot understand how sufficient power can be generated in this manner to operate a heavy object. I do not understand it and fail to place any importance in it."

But Dr. Frederick Hoffstetter, head of the Hoffstetter Research Laboratory, of Pittsburgh, went much further. He went, in fact, to New York and hired a lecture room of a large New York hotel. He had come, he told his audience, to expose a fraud. The learned doctor brought with him and exhibited models of the Hendershot motor. He demonstrated that they wouldn't work. And to clinch his arguments, Dr. Hoffstetter announced that he had found, concealed in one of the models, a carbon pencil battery.

This statement was misleading. It is true that, several years before, Hendershot, having no evidence of the good faith of his visitors, had stuck into his motor various devices to lead them away from the real idea he was working on. But in the Selfridge Field tests, there had been no means of concealing anything in the motors built by the mechanics employed by Major Lanphier.

Having done what he considered to be a good job of proving Hendershot to be a fraud, Dr. Hoffstetter packed up and returned to Pittsburgh. A few days later Hendershot's name dropped out of the newspapers completely.

That should have ended the matter. And so far as the general public is concerned, it most definitely did. But to a few thoughtful people several questions still remain unanswered. Charles Fort, in his book "Wild Talents," raises several of the most pertinent ones.

Fort emphasizes the fact that Hendershot was backed by Major Thomas Lanphier, U. S. Army, Commandant of Selfridge Field. During tests at the Field, a model of the motor generated enough power to light two 110-watt lamps, and another ran a small sewing machine. Major Lanphier stated that he had helped to make one of these models and that there was nothing fraudulent about it. To the suggestion that the motor was stealing power from some big broadcasting station Major Lanphier replied: "We thought of that, but we ran it for twenty-six hours, when the stations were going and when they were not, and we got the same results."

Again, Fort points out: "If the thing were a fraud, it would seem that it would have to be obviously a fraud." Here was a simple little contrivance weighing less than ten pounds. It was made by the mechanics of Selfridge Field, under directions. Couldn't they quickly have determined if it were a fraud or not?

And wasn't it extraordinary—or significant—that Dr. Hoffstetter should have traveled so far and gone to so much trouble to expose a fraud, claiming that it would be capable of destroying faith in science for a thousand years? Faith in science destroyed by whom? An unschooled young fellow whom most of the world had never heard of before? "What I pick up," concluded Fort, "is that there must have been an alarm that was no ordinary alarm somewhere."

Lastly, Hendershot dropped out of the newspapers by way of a story that was very strange indeed. On March 9, 1928, the newspapers reported that Hendershot was a patient in the Emergency Hospital, Washington, D. C., recovering from temporary paralysis. He had sustained a severe electrical shock while demonstrating his motor in the office of his attorney in the Washington Loan and Trust Building, Ninth and F Streets. The shock had temporarily paralyzed his arms, legs, and palate, and he could not be discharged for several weeks. Isn't it singular, in view of the charges made by the scientists, that a bolt, estimated at two thousand volts, should have shot from the motor and temporarily paralyzed its inventor?

So, to this day, a gigantic question mark hovers suspended over the story of Hendershot and his motor. The truth of the matter will probably never be revealed, for those who know it are not likely to talk.

A careful study of the matter leads to a number of different conclusions, any one of which may be true. Manufacturers of combustion motors, seeing ruination ahead, may have gotten together and bought Hendershot off. Or, the producers of motor fuels may have combined and bribed him to drop out of the picture. Orthodox scientists, seeing some of their pet theories headed for the ash can, may have found some means of keeping him quiet. Or perhaps, as Fort suggests, Hendershot possessed some wild talent, some power of mind over matter, which caused the motor to run while in his presence.

But certainly, under no circumstances, do the facts sustain the conclusion that the Hendershot motor was a fraud. Therein lies the mystery.

THE END

The editors of FATE wish to point out that if you liked this story, you will find our big new sister magazine OTHER WORLDS much to your liking. It features science fiction.

THE SO-CALLED HENDERSHOTT MOTOR

by
Associate Gaston Burridge

For more than 25 years, Lester Hendershott and "The Hendershott Motor" have appeared to be an enigma wrapped in an obscurity tied with a contradiction. They still are. Most people are surprised to learn that Lester Jennings Hendershott is alive. He is very much so. Not only is he actively alive, but at 57, he is deep in his experiments with his device - a device which has come to be erroneously known as a "motor". To call Hendershott's mechanism - or "electricism" - a motor, only adds to the enigma. Long ago, it was termed by a most orthodox scientist, "more properly a generator than a motor". Somehow, "generator" never caught on. It has always been "The Hendershott Motor". Probably, it will remain so. In addition to generator, the arrangement may be properly called an apparatus, a system, or a device.

It seems to me it would be quite incorrect to say Hendershott deliberately created the enigma. It would also appear wrong to say he has ever done much to help clear it away! The enigma has suited Hendershott's purpose because he does not know, he says, what he has! He does not know, he says, how it works. Neither does he know, he says, how to duplicate it consistently, or in different sizes. "I am not one of those slide-rule boys," he told me. "I don't know how to figure these things out first. It is pretty much a 'cut and try' proposition with me."

Whether Hendershott knows what he is doing or not, he has evidently created "a something" which has seemed interesting enough to others, for they are, at the present time, seeking to duplicate his accomplishments. I know of one such effort being attempted in New Jersey, another in the Bay region of California. Whether either of these will "beat Hendershott to the Patent Office" remains to be seen. Whether a patent will truly protect such a device or not is highly problematical. While it might certainly prevent large scale outside manufacturing and sale, it most certainly would not prevent private or individual manufacture and use! Of course, our patent laws do protect - in theory - against individual duplication of any patented article, but - in practice - it is quite impossible to accomplish such protection. Once anyone has learned how to tap a basic source of energy for his private use, and sets the knowledge forth in a patent - which he must do to obtain it - the world will not beat a path to his door, so much, as to the door of the Patent Office, for there they can learn the secret for 25¢! Sooner or later, every inventor of such a device comes to realize this fact. He is thus between two fires. Both are equally hot. Either is bound to consume him sooner or later.

This, I believe, is why so many of these systems have died with their inventors. Few men have learned - perhaps it is impossible for them to learn - that he who gives most, receives most. All of us are too close to the jungle for such thinking. However, denying a truth does not obliterate it.

What makes up a Hendershott "motor"? There are some basket-woven, flat coils of insulated wire. These, no doubt, are inductances o f some sort. What is the size of the wire or how many turns of it on each "pancake" there may be, Hendershott does not say. There are some stainless steel rings - "non-magnetic" stainless steel - and some pieces of "stick carbon". There are some short lengths of "Alnico" or equivalent, permanent magnets. There may be - and probably are - some electrical condensers among this plethora of parts, but Mr. Hendershott does not say, nor are their capacities hinted at. Too, there may be other accouterments well hidden from prying eyes. I would be surprised if there were not! It would appear there are no moving parts which deliver the power, hence the lack of any true resemblance to a motor. The device manufactures an electrical current which Mr. Hendershott told me would power either an electric motor or light an incandescent lamp. In fact, he has pictures of himself holding the device in one hand and a lighted bulb in the other. He also has pictures of the device placed on a pile of lumber, and a lighted lamp above it.

There also appears to be within this device some very critical features. For instance, as Mr. Hendershott told me, "Sometimes, I wind on too many turns of wire. Then, the thing won't work at all. I take some of the turns off. Maybe it works, and maybe not. If it works it soon burns out. That is my greatest trouble - the thing burning out." One immediately wonders if it is possible the potential of the power source changes frequently?

What powers the Hendershott device? If Mr. Hendershott knows - even has any idea - he hides the knowledge well. He says he doesn't know. He also hastens to comment that any scientist who has watched his apparatus in operation, doesn't know either! He does not name any scientist who has watched his device in operation. The common explanation of the source of its energy has been from "the magnetic lines of force of the earth". If such is the source, Nikola Tesla, the great electrical inventor, once commented, "such a force would have to be measured in 'mouse-power'". There are two other possible sources. One is earth electricity, the second, atmospheric electricity. It was Tesla himself who established there were such charges in each. He learned the earth's charge was positive, the atmosphere's, negative. Tesla also learned Nature had a means of maintaining the earth's full charge continually. If he e v e r satisfied himself how this was accomplished, it remains one of his many secrets.

There is a possibility the earth may be an "electro-magnet", rather than a permanent one. If so, there is also a possibility its power could be considered above the "mouse" classification. Dr. Edward C. Bullard of the National Physical Laboratory in London, presents a theory accounting for the earth's possible electro-magnetic field. Briefly, Dr. Bullard says the earth's liquid or semi-plastic core is highly radioactive. This radioactivity generates enough heat so motion in the form of convection currents is set up. These currents provide the "excitement" necessary to make electro-magnetism a possibility. Thus, in theory, at least, there are possibilities of a source of power to operate Hendershott's apparatus. It may well be, while its potential is theoretically great, like the power from the sun, its actuality is small. It is also possible, while its potentiality is great, the cost of collecting it or converting it, is also great, because our present methods of using energy are so crude. We seem to waste much more than we use. As yet, we have not overcome the "friction of use!"

Someone has said, "point of view is everything." Well, if not everything, then a great deal. Digging out "facts" is often dependent upon the tint of the lenses in one's glasses. Here is what I mean. Early in Hendershott's experience he was taken to Detroit's Selfridge Field to demonstrate his "motor" to Major Thomas G. Lamphier, Commandant of the Field. The Major was interested in the device, but never claimed any sponsorship of it. Shortly, Detroit newspapers carried stories that the technicians at the Field had constructed a device under orders of Major Lamphier and under instructions from Hendershott. This motor worked according to press releases of that day.

Being interested in this point, after considerably difficulty, I located, now Colonel and retired, Thomas G. Lamphier. In answering direct questions from me, Colonel Lamphier informed me that no Hendershott device of any sort was ever constructed at Selfridge Field under Hendershott's instructions while he, Lamphier, was Commandant. Lamphier said, "The only device ever at the Field was one which Hendershott brought to the Field - and it was proved a fake at an eastern University laboratory."

I laid this information before Hendershott. He remarked, he could not understand it at all, because the device was built at the Field, by Field technicians. That he, Hendershott, did not even so much as wind a single coil of it. That the completed device did work --just as the newspapers had reported. Thus. are enigmas built!

A Washington, D.C., newspaper carried a story on March 9th, 1928, relating Hendershott was recovering in a Washington hospital from a 2000-volt shock sustained while demonstrating his device in the office of his patent attorney, presumably to interested capital. I have in my files a letter from a newspaperman, long with one of the leading Pittsburgh daily papers, which states Hendershott was not

taken to the hospital for any such shock treatment at all, but for a lunacy test. Strange as it may sound, Hendershott was not found "guilty", and was released. One is often quite surprised at the tip of Justice's scale!

Whether Hendershott's device is ever developed to a point where it is, or can be, understood and used for 'everyday purposes', both he and it will always be 'between covers'. This comes about through Charles Fort having devoted several pages to Hendershott in his book, "Wild Talents", last chapter (32). Fort doesn't "plug" very hard for Hendershott, but does bring up several points which might otherwise be overlooked. I asked Hendershott if he had seen that which Fort had written about him. Hendershott replied that he had. As Hendershott answered several other questions relative to the publication, I thought I noticed a bit of impatience both in his tone of voice and general attitude. This indicated to me he was not overly pleased with the words he read.

The January, 1950 issue of "Fate" magazine carried a story on Hendershott. My investigations lead me to believe this story was based upon the account in the Fort book along with those of several newspapers published in 1928. When I brought this story to Mr. Hendershott's attention, his reply to my questions were evasive. I gained the feeling that Hendershott knew Mr. Fleming, the article's author, but for some reason was displeased with either the piece, or the results <u>accruing</u> from it. There may be an interesting story lying buried here!

In the May, 1953, issue of "Fate" magazine appeared an advertisement from the "Utility Engines" professing to have plans for sale of a so-called Hendershott motor. Suddenly, all mail was rejected by the address of the "Utility Engines"! I asked Hendershott about this matter. He told me he learned of it soon after the advertisement was published. Soon after that he learned about the plans they were selling and using his name. They were doing this, Hendershott claimed, without his permission or consent. He told me that he promptly informed the postal authorities of the circumstance. "They must have done something about it, for I heard nothing more about them," he said. Hendershott was quite emphatic to me regarding the plans put out by the "Utility Engines" <u>not</u> being of his device. He was so emphatic, in fact, I felt he, <u>like</u> the maiden, "didst protest too much". Thus, 'the ol' hound dawg's nose' went to the ground! In due course it came up with the information furnished by an acquaintance of Hendershott's to the effect that Hendershott had remarked at the time, while the "Utility Engines" information was not his device, "it was pretty d--- close!"

I have had the "Utility Engines" material before several competent radio and electronic men. They say the diagram of connections are definitely within the radio band of frequencies. They comment that the device would undoubtedly work - <u>if</u> close enough to a powerful radio transmitting station. I also <u>know</u> of several who have been trying for months to "make something out of the prints", but so far, have failed to do so. These men are trained in electronics and

radio techniques. If the plans are as close as indicated by Hendershott's remark, some one may "stumble" across the right answers. Who knows?

The afternoon I met Hendershott he was in his front yard taking some pictures of his young sons with a new Poloroid camera. I am pretty sure the camera was new, because the pictures were not turning out well. Hendershott is a rather short man, balding somewhat, and of a rather rotund build. His eyes are dark brown, alert, and at times piercing. He seldom smiles. When he does smile it is a wan smile, and not very generous in amount. Hendershott gestures a great deal with his hands, and shakes his head negatively often. I felt he distrusted me greatly. This became more evident as I laid before him more and more of the information I had. Many of my questions Hendershott refused to answer point blank, referring me to his attorney. When these same questions were laid before his attorney, the attorney also refused to answer them. Why, only time will tell. I think I know.

Probably, there is "something to" the Hendershott device, or any other of its nature. Whether that "something" is of great potential or not, remains to be seen. Fantastic amounts of energy lay all about us. Mankind seems only to have learned to use energy in huge quantities, wasting most of it. The more "civilized" he has become, the greater his energy use - and waste. It is quite evident, if he continues to multiply and continues to require more energy, he will have to look for it in some new places, or entirely revamp his machinery. There appear certain basic dangers for man along the pathway of using atomic energy - dangers of processes and uses getting out of hand, these blowing himself and his planet to Kingdom Come. There may be as many dangers along the pathways of earth electricity, electromagnetism, atmospheric electricity, or solar power, but somehow I have a feeling there are not. Everything we have, everything we know, was put together once. As far as we have learned, the putting together process has consumed considerable of that which we know as "time". Perhaps "hurry" has been the tune of the piper - and we haven't asked the price!

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A STORY OF FREE ENERGY

By Associate Ed Skilling

On a warm July evening 1958 a telephone call from a friend and business associate startled me. The gentleman, an orthodox scientist, Dr. X to protect his identity, who had obtained his Doctorate at Columbia University, asked me to see a free-energy device in which he had just invested considerable capital for a three month option to buy a 50% interest.

After signing a secrecy agreement I met with Lester J. Hendershot and saw the Hendershot Motor. Dr. X chose to rename it the Hendershot Fuelless Generator, which was more descriptive of the device.

Les Hendershot in his sixties was a simple, sincere individual with a lovely wife and four wonderful children. I had expected to meet a fast talking con man who, I thought, was about to take my friend for his money.

The story of the Hendershot Motor as it was called in the late 20s can be found in Charles Fort's book "Wild Talents" and in the files of the Detroit "Free Press" and the New York "Times". "FATE" Magazine carred an article on it by Associate Gaston Burridge in January 1950. The Fate article renewed interest in the unusual device, much to Hendershot's sorrow, as he was plagued by all sorts of people, from business investors to weirdo religious fanatics who accused Les of causing earthquakes, floods and famine.

The unit that Dr. X had seen operate with a power output of 300 watts was partially disabled when I first saw it, due to Dr. X's insistence on seeing the manner in which the coils were assembled. My part in the program was to duplicate the unit and attempt to produce power in the same manner. To save time we were to rebuild the disassembled coil and try to get it working again as well as build a duplicate model. My only interest was academic so there was nothing to lose but my sanity.

Several days later, after much sweat and frustration, the original working model and the duplicate unit were assembled and wired to the schematic drawing I made from the original wiring. Strangely enough, I learned that I was the first to make a true schematic using electronic symbols rather than picture diagrams.

Les Hendershot was a clever man with his hands but was not an electronic technician. His knowledge in the field of electronics was learned by tinkering with radios, and either he did not know how to construct an original diagram or he didn't choose to, due to his desire to maintain secrecy. Dr. X and I attempted to get the original unit working in my lab without success. We returned to Hendershot's

home for further consultation and experimentation. Several hours after arriving at Hendershot's home at about 2 a.m. the 75 watt light bulb we had placed as an output load flashed once. This incident encouraged me onward and it was a lucky chance that it did flash as I would have left the project and filed it away as a hoax. It was not until October 26, 1958, four months later, that I saw a real demonstration of electrical phenomena. Many tests were made between July and October of that year and much investigation to determine the principle involved in the circuitry was carried out. To make a long story short and to save retelling of countless details involved in my experience since 1958, I can say that I know of no one person other than Lester Hendershot who has been able to make a Hendershot generator produce power. Many people have seen demonstrations in many places and at many times, including Mexico City. All have failed to duplicate Hendershot's electrical phenomena.

I have my own pet theories on what principle is involved but have been unable to accept the theory of many who feel that Hendershot was an undeveloped psychic who under certain conditions could produce this ability. My conclusion was reached by means of logical analysis.

Many times in the past and certainly in 1958 while Hendershot was away from his home working, his children were able to turn the unit on and operate a floor lamp and television set in the family living room without Hendershot's conscious knowledge that the device was producing power.

Until it can be proved otherwise, I shall continue to investigate and experiment with ideas based upon my own conclusions. Lester Hendershot died in April 1961, and if there was any known secret to his ability he could not tell us directly.

I have never read or heard tell of any gainful results obtained by means of contacting the departed through mediumship. Much philosophy but little useful technical information can be had in this manner, at least in this writer's opinion. For what it is worth to technically inclined Associates, the details of construction will be revealed now to BSRA. I'm sure others can obtain some results such as occasional shocks from charge build-up in the unit and minute indications of power which is all I could produce. It may be that some one can duplicate Hendershot's ability.

* * *

We are certainly glad to have Mr. Skilling's personal story of his experiences with Hendershot and his "fuelles generator". The schematic diagram and technical explanation will be in the next Journal. We'll still string along with H.P.Blavatsky's opinion that the power for Keeley's fuelless motor was his own ectoplasm, and that Hendershot, like Keeley, was a natural magician. But that's an opinion after all and the facts, I hope, will be brought out by further research. Another Associate, the late J. Gilbert E. Wright detailed his efforts to get technical information through mediums in the BSRA brochure "Two Inventors Return" -- Edison and Steinmetz, 31 pages, mimeo.

A STORY OF FREE ENERGY

By Associate Ed Skilling
Part II, Conclusion

This man, Lester J. Hendershot, was an amazing individual when compared to men with technical abilities acquired by formal education. His native intelligence was extremely high. Charles Fort was certainly correct when he included Hendershot among the rare individuals that have Wild Talents.

His ability to perform technical feats by intuition was developed to a high degree. As an example: If he wished to build an electrical coil that would operate in a circuit at a resonant frequency of say 500 KC he would go to an electronic supply store, pick out a spool of wire from the supply racks, take it home and wind a coil on a form which would turn out to measure in a resonant circuit, 500 Kilocycles. He was able to consistently achieve this phenomena, and as a result of it created a fuelless generator that would produce electrical power.

When compared to T. Henry Moray, Hendershot in my opinion was a giant.

The Associates reading this Free Energy story will learn that Hendershot duplicated the same electrical phenomena that Moray did with far simpler components. Hendershot did not require a secret, exotic type of ionic cold cathode tubes as valves and oscillators which Moray claims is the secret behind his Radiant Energy.

This writer's experience working with Hendershot combined with what is published in Moray's book "The Sea of Energy in which The Earth Floats" leads one to believe that the energy field tapped by these unusual men is one and the same. Both men appear to have suffered similar problems in trying to present to the world, Free Energy. It is most unfortunate that Lester Hendershot did not live to meet T. Henry Moray, as the combination of the Hendershot simplicity of circuitry with Moray's knowledge and theory of Radiant Energy would astound mankind.

Lester J. Hendershot was of the opinion, as expressed to this writer in 1958, that his Free Energy device, the Hendershot Generator, was tapping a magnetic force field. Examination and study of the components used in the Hendershot circuit does not substantiate a magnetic theory.

Tests of the circuit in a strong magnetic influence would not induce a voltage in the circuit that would produce power. After exploring various facets of magnetic fields in an attempt to induce power into the device, the search was abandoned. A great deal of study was made in a search for a theory that would fit the components used in the device. The electrical parts used in the Hendershot circuit, such as: capacitors, coils, transformers, magnets, solenoids, were studied on their individual merits to determine their function in the circuit wiring.

Measurements in the static condition were made of the non-commercial items to determine component values.

BASKET WEAVE COILS

The unique feature of the Hendershot device is the basket weave coils, with cylindrical capacitors built in the center of the coils. (See A & B, Fig. 1) Hendershot did not explain his intent when he designed this part of the circuit. In the early days of his experience, during the late 20s, he used standard broadcast radio coils which he could purchase in the radio supply stores of that era.

A test of the present coil design on a radio frequency resonant bridge or "Q" meter will reveal that the coil out of the circuit will be self resonant in the lower frequency of the radio broadcast band of 500 KC. This indicates that Hendershot kept the present design in the same ratio of inductance that was used in the early days.

Another interesting component is the solenoid coils CH1 & CH2 used in conjunction with a magnet from a radar magnetron with a soft iron bar between the magnet and the solenoid coil cores. During operation of the Hendershot Fuelless Generator, this unit will buzz at a frequency rate dependent upon the air gap between the magnet, iron bar and coils.

The magnet-coil device was mounted in a frame so that a screw adjustment would move the coil in relation to the magnet, varying the air gap which varies the resonance of this "buzz" frequency. Like the basket weave coils, A & B, the magnet-coil device idea was derived from a telephone receiver used in the early days. A regular buzzer used in a door bell annunciator should serve the same purpose. Hendershot purchased the solenoid coils in a radio supply store and they appeared to have been used in a 110 volt bell ringer.

The two commercial transformers, also purchased from a radio supply store were vertical oscillator transformers used in a TV set and were of unknown make or brand. They have a 5:1 turns ratio. Hendershot used several different types of transformers in the circuit but found the TV ones worked the best. Two dual electrolytic capacitors C3, C4, C5 and C6 are standard Pyramid TM 58, 40-80 MFD at 450 working volts.

Two additional capacitors are required for C1 and C2. The hand-wound capacitor used in center of the basket weave coils are also made from Pyramids TM 58. Coils A & B are identical in construction so only one will be described. The coil is cylindrical, 5 15/16 in. diameter. (See Fig. 2) It is wound like a basket around fifty-seven 1/8 in. diameter wood dowel pins three inches long. The dowel pins are even spaced on the circumference of the circle. All coils are wound in the same direction, weaving in and out between dowel pins mounted in the same type base to hold them rigid..

Starting at the base, L2 is 64 turns of No. 24 gauge copper enamel or Formvar wire close wound. L3 & L4 is Belden thermoplastic hookup wire No. 20 gauge, a 25 foot spool is required for each coil L3 and L4. 25 feet will end up with 24 turns wound in the same fashion as L2, close

Schematic Fig. 1

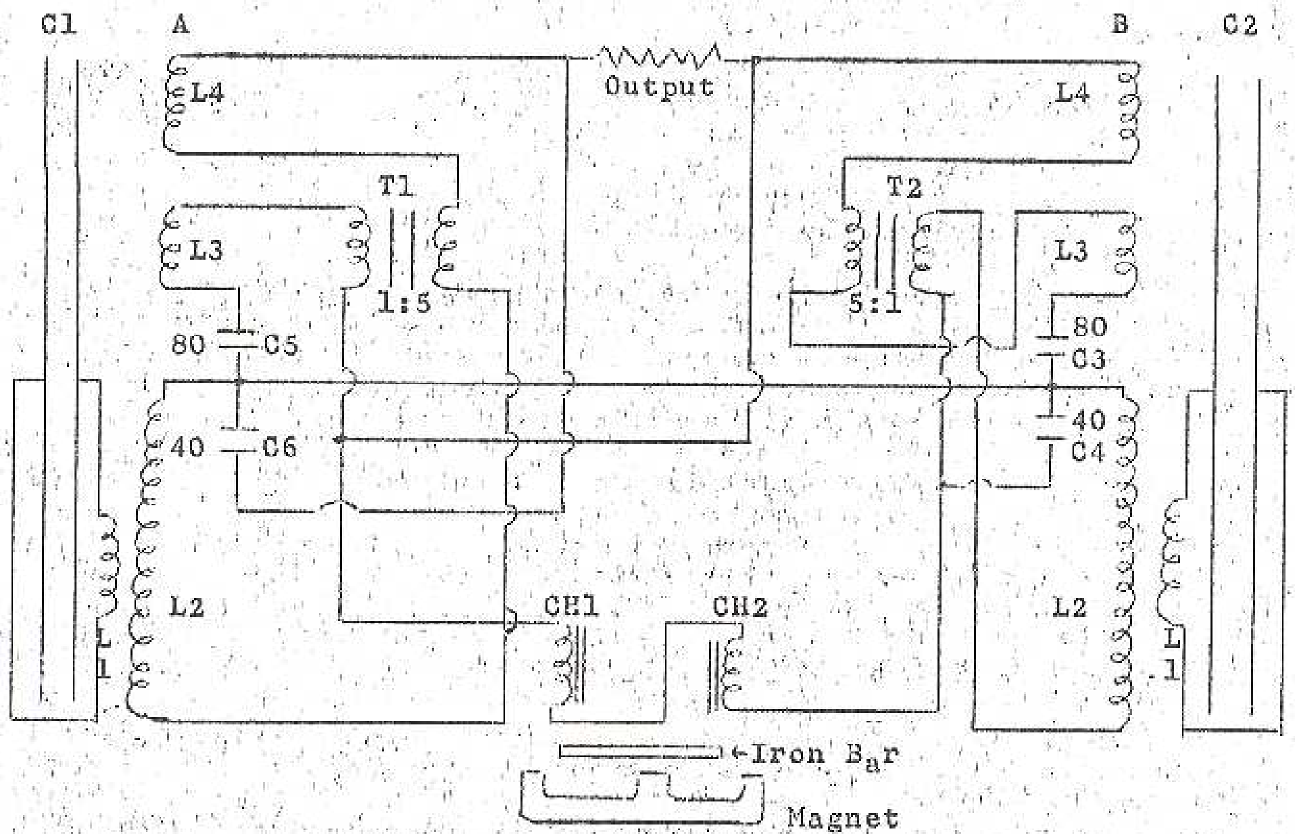
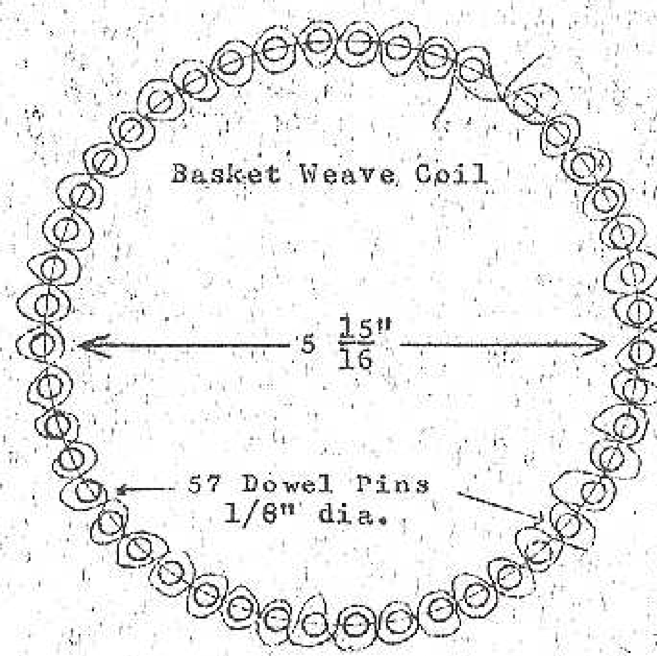


Fig. 2



wound. Hendershot always used L3 yellow and L4 red for easy identification.

L1 is made from No. 28 gauge copper enamel coated or Formvar magnet wire. 14 turns close wound over the outside diameter of L2 in the center of L2. Plastic electrical tape is wrapped around L1 to form a smooth surface for winding, after winding the 14 turns, wrap additional tape to hold L1 in place.

The Capacitors C1 & C2 are the most difficult to build and are the critical key item to success or failure inproducing results. The foil from two capacitors, Pyramid electrolytic TM 58, must be removed from the can that encloses the foil by cutting the top or bottom off with a hack saw or other cutting device. The coiled foil is removed from two cap-

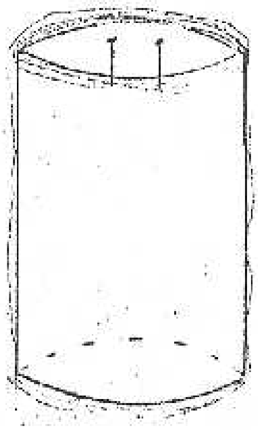
acitors and spread out on a flat table. A TM 58 capacitor should measure, including foil and paper, 91 1/8 in. long and 2 3/4 in. wide. Wipe off excess electrolytic solution so that it is dry. One side of the paper holding the foil will be full length, the opposite side will be split with terminal connections appearing at each end of the split portion. The capacitors that were used in the early experiments had a gap between the split foil of 3/4 of an inch.

Prepare two cylinders of metal with dimensions of 5 1/4 in. in diameter by 2 3/4 inches wide. A stainless steel sheet metal .032 thick was used in Hendershot's cylinders, open at both ends. Before wrapping begins, insulate the cylinders with pure kraft paper. Ordinary brown wrapping paper is unsatisfactory as it contains impurities. Wax paper might be used as a substitute.

It is interesting to note that Hendershot originally used one pound coffee cans for the capacitor cylinders but found that after a period of time the electrolytic left in the capacitor paper would perforations in the metal, rendering the cylinder useless. This is why he made the later cylinders of stainless steel.

After insulating the cylinders, wrap the capacitor foil and paper around each of the cylinders. Start at one end with the long unsplit foil on the inside and wrap the full length onto the cylinder. Secure the wrapped capacitor with a string or tape so that it will not unravel. Both units should now look the same.

Fig. 4



Each of the completed capacitor cylinders C1 and C2 are placed on the inside diameter of Coil A and Coil B. After centering the cylinders, pour melted paraffin into the outside diameter of the cylinder and inside diameter of Coil A and Coil B. The melted paraffin will run into the turns of the wire sealing the complete units. If the correct tensions were applied while wrapping the capacitor paper and foil, the measured capacity should be .0078 MFD.

It is very difficult to obtain the correct capacity and this process may have to be repeated many times to arrive at the right value for each unit. Short circuits of the capacitor will render the results useless and of course make it impossible to measure the resultant capacitance value. For accuracy the capacitors should be measured with a reliable capacitor bridge. Hendershot was able to accomplish this feat intuitively.

If all conditions of the circuit are met with the proper component values and if the wiring is made according to the schematic diagram, the unit should function and produce 300 to 500 watts of energy. The only limiting factor to the amount of power that can be extracted is the wire size used in the coils and transformers. Hendershot on many occasions

when applying excessive output loads, would burn up the unit by the over heating of the wiring. Some variations can be made in the circuit wiring but what changes are tolerable are unknown.

UNKNOWN CHARACTERISTICS

After a unit was wired either by Hendershot or other experimenters he would sit down at the device with a length of insulated wire bared at each end and begin making connections to various terminals of the unit until the solenoid-magnet combination would buzz and the output load, if it was a standard 110 volt light bulb, would glow. He then would adjust the air gap between the magnet and solenoid coils until full brilliance was achieved and the buzzer produced a steady tone. This procedure would take from a few minutes to several hours.

On one occasion he adjusted the unit for 10 to 15 mintes and only achieved a flash of light from the output. Several hours later he found it necessary to rebuild the capacitors before any further tests could be made. Either the unit would work immediately or not at all, depending on the unknown characteristics of the phenomena.

It may be noted on the schematic that capacitor C6, which is one half of a dual Pyramid TM58, the positive terminal is connected to one side of the output load. This connection places an electrolytic capacitor in an AC circuit. A polarized capacitor will not work in an alternating field and will overheat. The schematic diagram as shown in Fig. 1 did operate for ten to fifteen minutes before the capacitor began to boil and blow out. If an experimenter should be fortunate enough to achieve success in producing power it may be advisable to connect this capacitor the same as C4.

Experimenters who have worked with Hendershot may have other circuit diagrams that also produced results, but this story has been this writer's experience in a true story of Free Energy Phenomena.

* * *

We here at BSRA Headquarters would like to hear from any Associates who succeed on their own with the Hendershot circuit, but dont ask us for help on the technical problems involved, our philosophical background isn't up to it. Ed Skilling would be interested in your experiments and probably could make helpful suggestions. His address is

Our personal feeling about this Free Energy, discovered and proven by Keely, Moray, Hendershot and a few others, is that this is a manifestation of Etheric matter-energy. This is the Night-side of Nature, spoken of by Phylos in Oliver's "Dweller On Two Planets". Phylos says the Atlantean technicians of his time made common use of this Etheric energy as a power source; he also predicted, in the 1880s, that the Ethers would be discovered and used again in modern times. We've made a beginning on the study of this profound subject with the re-issuing of Meade Layne's "The Ether Ship Mystery and Its Solution", and have added charts showing the relationship of the four Ether levels to our known worlds of solids, liquids and gasses -- 40 pages, $8\frac{1}{2}$x11, mimeo.

A STORY OF FREE ENERGY

HENDERSHOT'S FUELLESS GENERATOR

by Ed Skilling

Reprinted from Riley Crabb's **Journal of the Borderland Sciences Research Foundation, July & August 1962,**

In the 1920's Lester Hendershot invented a free energy device which was called the Hendershot Meter. It was descibed in Charles Fort's book, **Wild Talents,** and in articles in the Detroit **Free Press** and the **New York Times. Fate** magazine (Jan. 1950) had an article by Gaston Burridge on the device.

This man, Lester J. Hendershot, was an amazing individual when compared to men with technical abilities acquired by formal education. His native intelligence was extremely high. His ability to perform technical feats by intuition was developed to a high degree. As an example: If he wished to build an electrical coil that would operate in a circuit at a resonant frequency of, say 500 KC, he would go to an electronic supply store, pick out a spool of wire from the supply racks, take it home and wind a coil on a form which would turn out to measure in a resonant circuit, 500 kilocycles. He was able to consistently achieve this phenomena, and as a result of it, created a fuelless generator that would produce electrical power.

Hendershot duplicated the same electrical phenomena that Moray did with far simpler components. Hendershot did not require a secret, exotic type of ionic cold cathode tube as valves and oscillators which Moray claimed was the secret behind his Radiant Energy.

Lester J. Hendershot was of the opinion, as expressed to this writer in 1958, that his free energy device, the Hendershot Generator, was tapping a magnetic force field. Examination and study of the components used in the Hendershot circuit does not substantiate a magnetic theory. Tests of the circuit in a strong magnetic influence would not induce a voltage in the circuit that would produce power. After exploring various facets of magnetic fields in an attempt to induce power into the device, the search was abandoned. A great deal of study was made in a search for a theory that would fit the components used in the device. The electrical parts used in the Hendershot circuit, such as: capacitors, coils, transformers, magnets, solenoids, were studied on their individual merits to determine their function in the circuit wiring. Measurements in the static condition were made of the non-commercial terms to determine component values.

BASKET WEAVE COILS

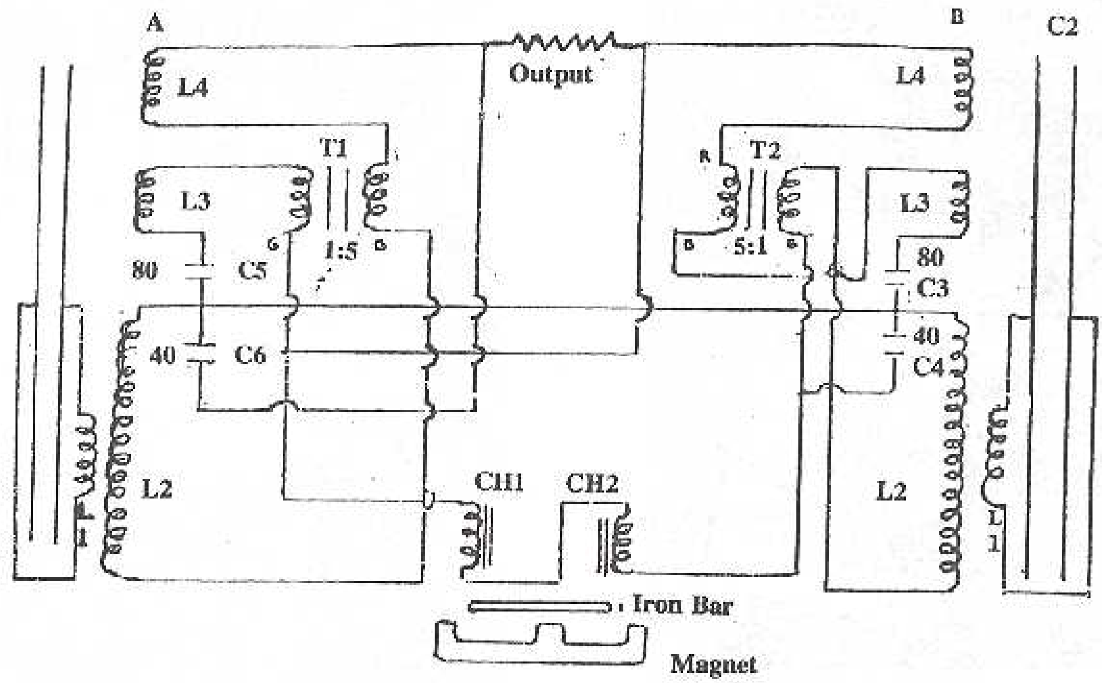
The unique feature of the Hendershot device is the basket weave coils, with cylindrical capacitors built in the center of the coils. (See A and B, Fig. 1). Hendershot did not explain his intent when he developed this part of the circuit. In the early days of his experience, during the late 20s, he used standard broadcast radio coils which he could purchase in the radio supply stores of that era.

A test of the present coil design on a radio frequency resonant bridge or "Q" meter will reveal that the coil out of the circuit will be self resonant in the lower frequency of the radio broadcast band of ? KC. This indicates that Hendershot kept the present design in the same ratio of inductance that was used in the early days.

Another interesting component is the solenoid coils CH1 and CH2 used in conjunction with a magnet from a radar magnetron with a soft iron bar between the magnet and the solenoid coil cores. During operation of the Hendershot Fuelless Generator, this unit will buzz at a frequency rate dependent upon the air gap between the magnet, iron bar and coils.

The magnet-coil device was mounted in a frame so that a screw adjustment would move the coil in relation to the magnet, varying the air which varies the resonance of this "buzz" frequency. Like the basket weave coils, A and B, the magnet-coil device idea was derived from a telephone receiver used in the early days. A regular buzzer used in a door bell annunciator should serve the same purpose. Hendershot purchased his solenoid coils in a radio supply store and they appeared to have been used in a 110 volt bell ringer.

Schematic Figure 1



The two commercial transformers, also purchased from a radio supply store, were vertical oscillator transformers used in a TV set and were of a known make or brand. They have a 5:1 turns ratio. Hendershot used several different types of transformers in the circuit but found the TV ones worked the best. Two dual electrolytic capacitors **C3, C4, C5** and **C6** are standard Pyramid TM 58, 40-80 MFD at 450 working volts.

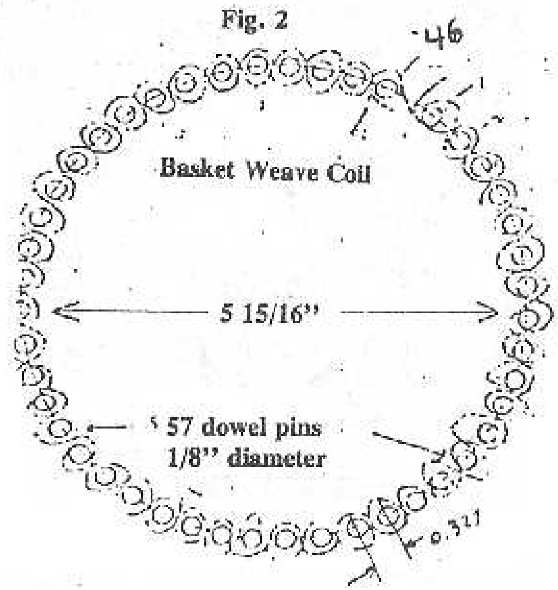
Two additional capacitors are required for **C1** and **C2.** The handmade capacitor used in the center of the basket weave coils are also made from Pyramids TM 58. Coils **A** and **B** are identical in construction so only one will be described. The coil is cylindrical, 5 15/16 inches in diameter. (See Fig. 2). It is wound like a basket around fifty-seven 1/8 inch diameter wood dowel pins three inches long. The dowel pins are evenly spaced in the circumference of the circle. All coils are wound in the same direction, weaving in and out between dowel pins mounted in the same ...e base to hold them rigid.

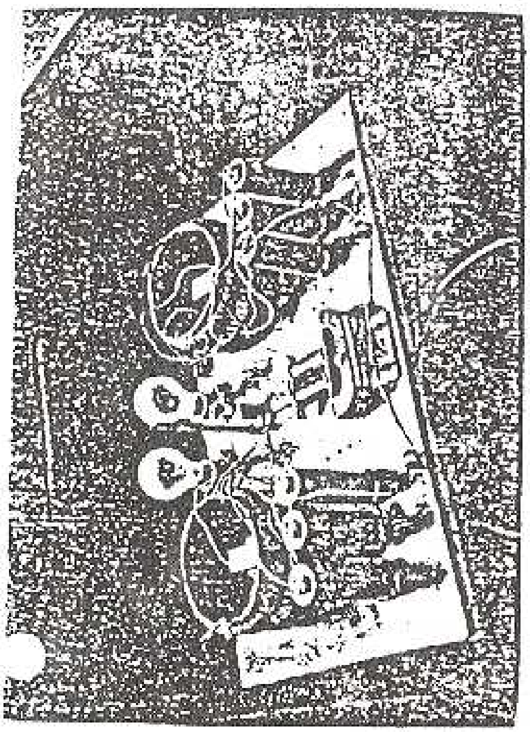
Starting at the base, **L2** is 64 turns of No. 24 gauge copper enamel Formvar wire close wound. **L3** and **L4** is Belden thermoplastic hookup wire No. 20 gauge, a 25 foot spool is required for each coil **L3** and **L4. .. feet will end up with 24 turns for both L3** and **L4** wound in the same fashion as **L2,** close wound. Hendershot always used **L3** yellow and **L4** red for easy identification.

L1 is made from No. 28 gauge copper enamel coated or Formvar magnet wire. 14 turns close wound over the outside diameter of **L2** in the center of **L2.** Plastic electrical tape is wrapped around **L1** to form a smooth surface for winding, after winding the 14 turns, wrap additional tape to hold **L1** in place.

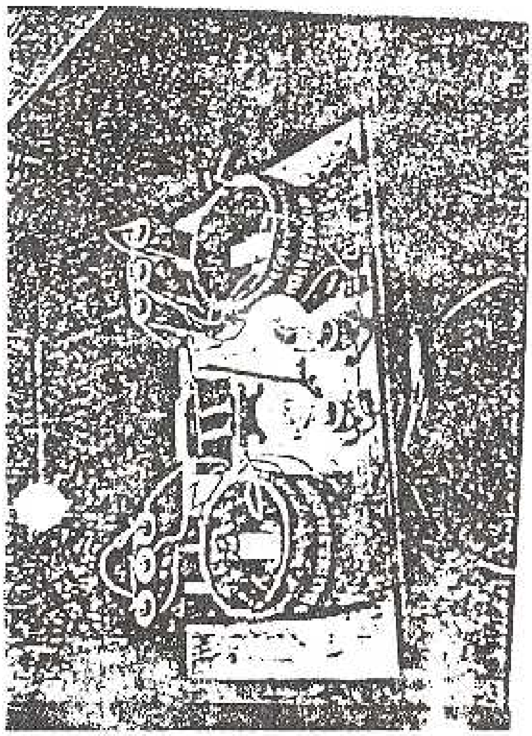
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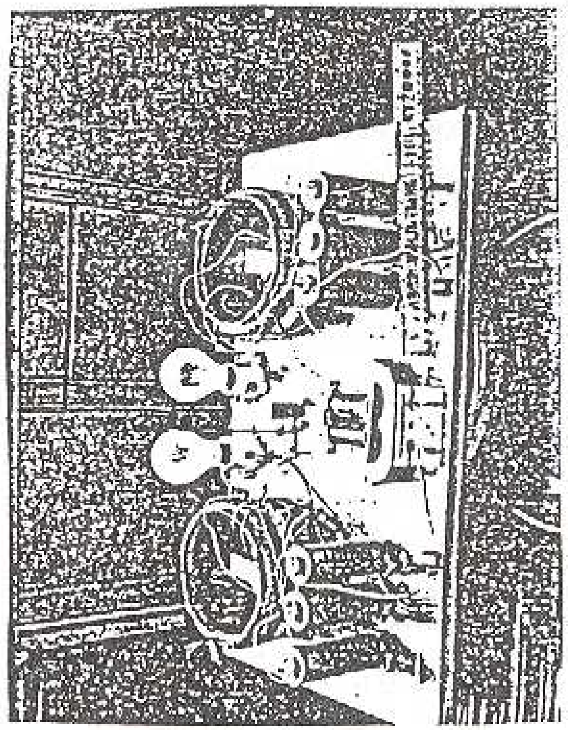
Fig. 2











ENERGY UNLIMITED #13,

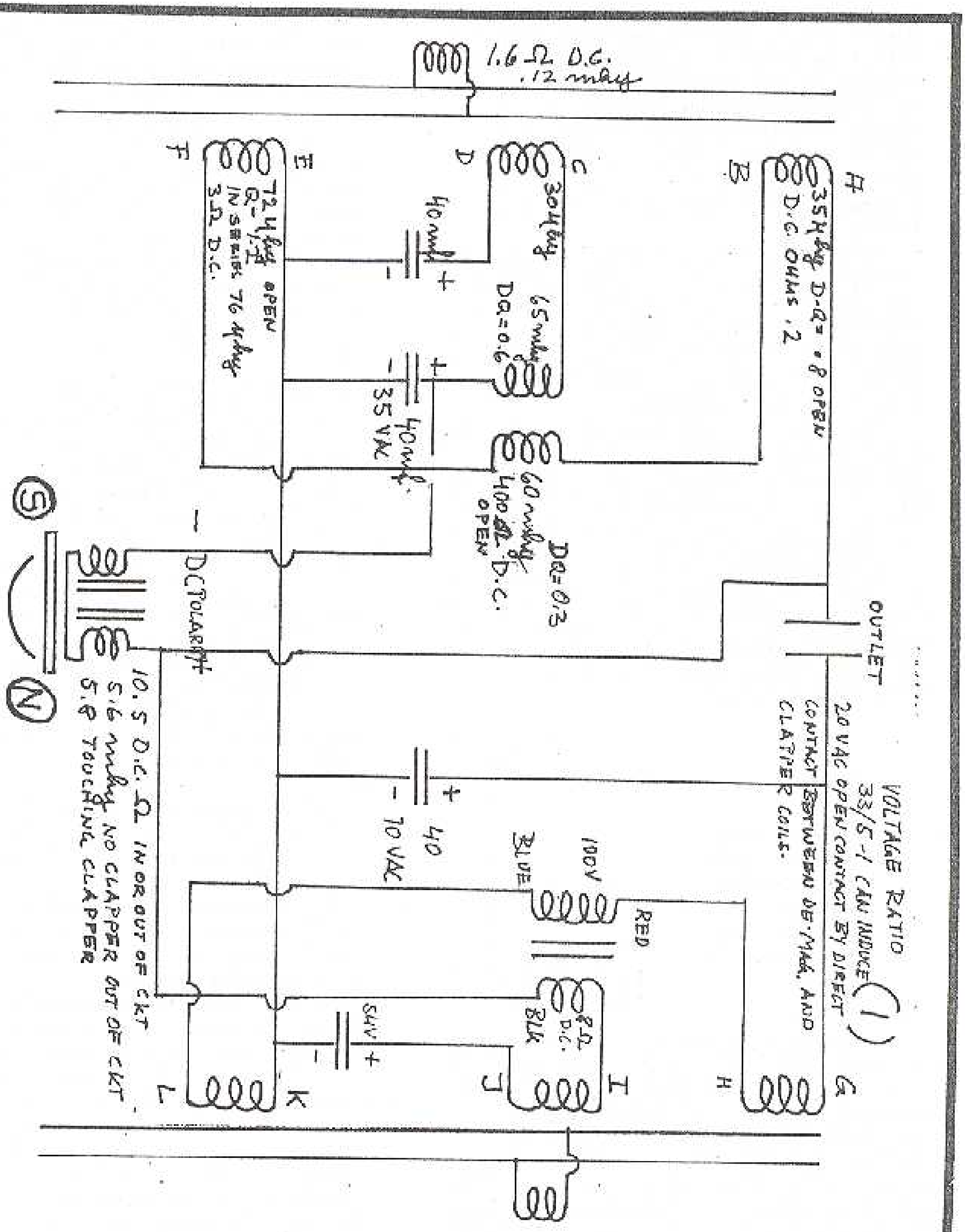

1.6 Ω D.C.
.12 mhy
A
B
C
D
E
F
G
H
I
J
K
L
OUTLET
VOLTAGE RATIO
33/5-1 CAN INDUCE
20 VAC OPEN CONTACT BY DIRECT
CONTACT BETWEEN DB. MAG. AND
CLAPPER COILS.
DC POLARITY
DQ=0.3
DQ=0.6
OPEN
35 VAC
70 VAC
40
100V
RED
BLUE
BLK
54V
S
N
10.5 D.C. Ω IN OR OUT OF CKT
5.6 mhy NO CLAPPER OUT OF CKT
5.8 TOUCHING CLAPPER

Fig. 3

encloses the foil by cutting the top or bottom off with a hack saw or other cutting device. The coiled foil is removed from two capacitors and spread out on a flat table. A TM 58 capacitor should measure, including foil and paper, 91 1/8 inches long and 2 3/4 inches wide. Wipe off excess electrolytic solution so that it is dry. One side the paper holding the foil will be full length, the opposite side will be split with terminal connections appearing at each end of the split portion. The capacitors that were used in the early experiments had a gap between the split foil of 3/4 of an inch.

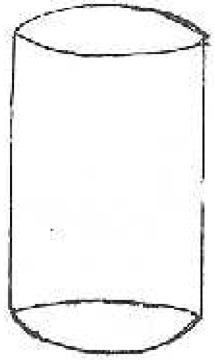
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After insulating the cylinders, wrap the capacitor foil and paper around each of the cylinders. Start at one end with the long unsplit foil on the inside and wrap the full length onto the cylinder. Secure the wrapped capacitor with a string or tape so that it will not unravel. Both units should now look the same.

Fig. 4

Original terminals of 40-80 MFD capacitor. Stainless steel cylinder wrapped in foil and paper.



Each of the completed capacitor cylinders **C1** and **C2** are placed on the inside diameter of coil **A** and coil **B.** After centering the cylinder, pour melted paraffin into the outside diameter of the cylinder and inside diameter of coil **A** and coil **B.** The melted paraffin will run into the turns of the wire sealing the completed units. If the correct tensions were applied while wrapping the capacitor paper **and foil, the measured capacitance should be** .0078 MFD.

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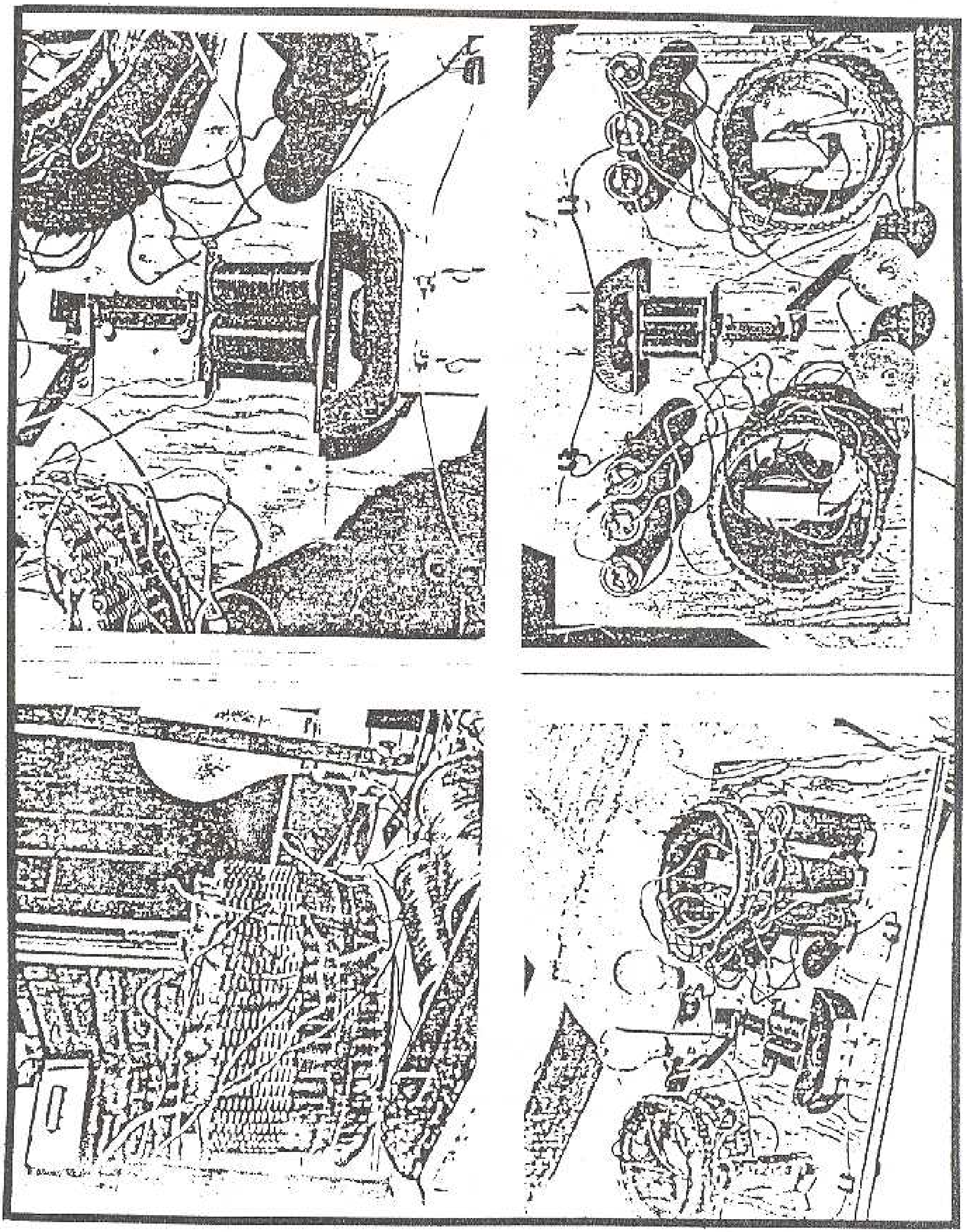
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Editor's Note: When we wrote Riley Crabb for permission to use Ed Skilling's article, **A Story of Free Energy,** Riley was kind enough to comment: "One thing lacking is the effective frequency of the Hendershot coil. The answer might be on page 44 of Deyo's **The Cosmic Conspiracy**...Here's the appropriate quote: "To tap the energy of such a broadcast requires the construction of a tunable Tesla coil which either operates at 14.3 KHz or some even super harmonic of it." I reminded Skilling of this and he was impressed." ###



J.G. GALLIMORE

Lester J. Hendershot
Hendershot Motor

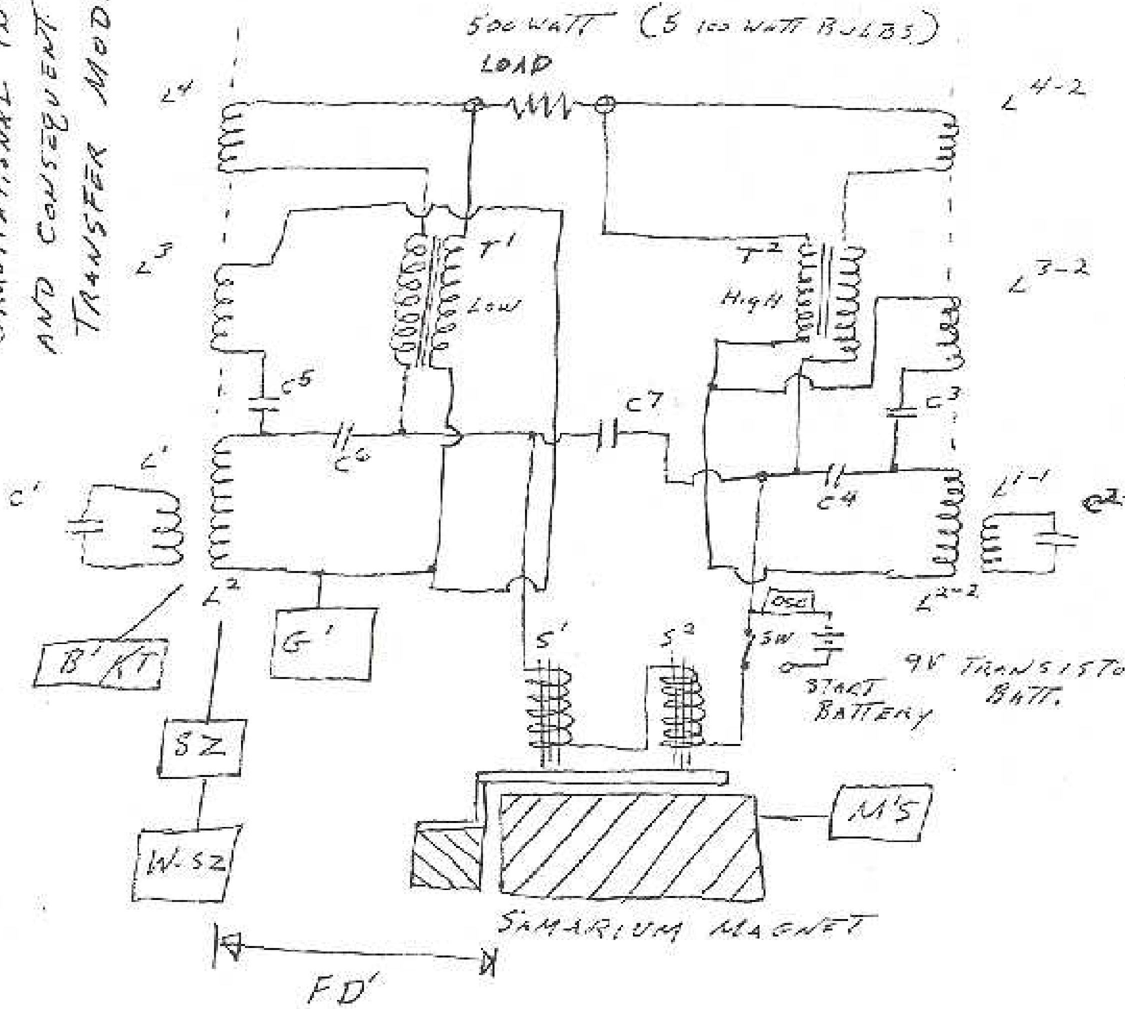
PRIVATE Research papers released to R.H. Crabb to publish, distribute, or do with as he wills!

sustained oscillation and Voltage Boost from interruption and absorption of magnetic lines of force - coupled with an induction/impedance match with the Earth.

defined 11-7-77
J.G.

GRAVITATIONAL INTERRUPTION AND CONSEQUENT POWER TRANSFER MODE:

PRODUCTION COSTS = APPROX. 160.00 dollars per unit.
output 500 watts - continuous
Research - incomplete for max. energy transfer.
size = 2 CUBIC FEET, MAX SIZE UNKNOWN



CIRCUIT OF RESONANCE AND OSCILLATION design (MULTIVIBRATOR) BUT CIRCUIT DRAWN INCORRECTLY

All CAPS 450 V.

C^1, C^2 = .0078
C^3, C^5 = 40 MF
C^4, C^6, = 60 MF
C^7 = 100 MF

L^1 = 26 TURNS
L^2 = 67 turns
L^3, L^4 = 24 turns

T^1, T^2, = 5 X 1

WIRE SIZE AWG 22, 24, 26
START BATTERY - 9V DC
RESONANT FREQ. OSC.

B', UNSPECIFIED
G', UNSPECIFIED
M', UNSPECIFIED
SZ, UNSPECIFIED
W.SZ, UNSPECIFIED
FD', UNSPECIFIED

All PHYSICAL PARTS SPECIFIED

10 components + Freq.

①

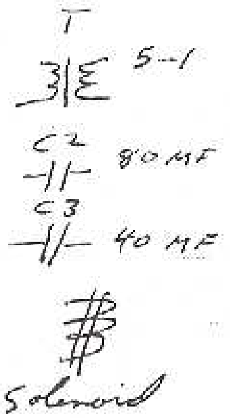
Wiring #22

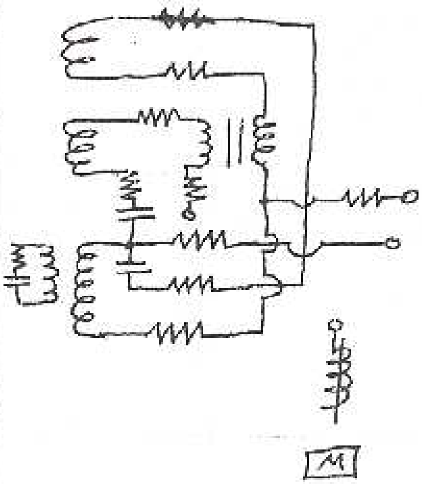
24T#20 (L4)

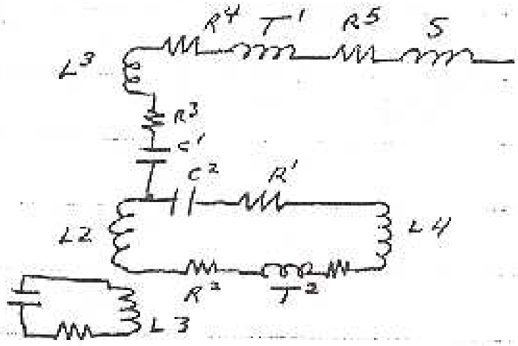
4T#20 (L3)

4T#24 (L2)

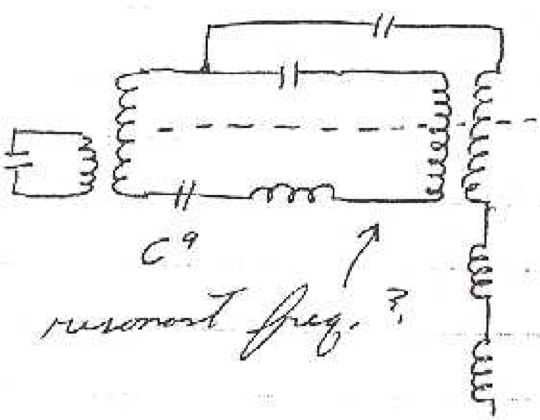
4T#28 (L1) C1

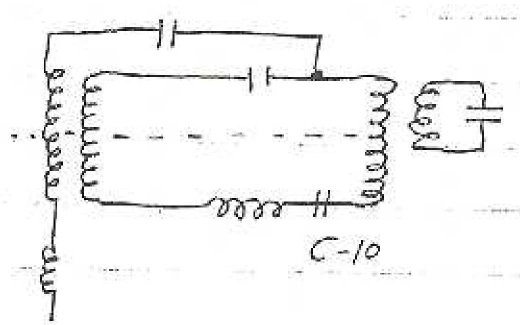






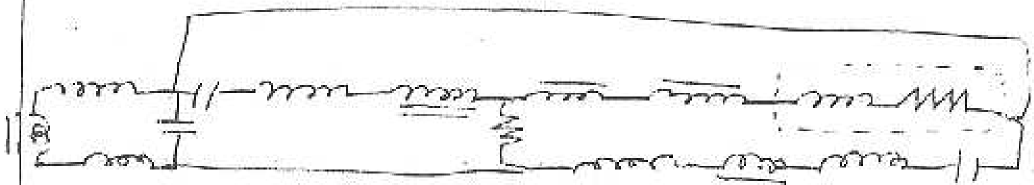
components can be "lumped" or added!

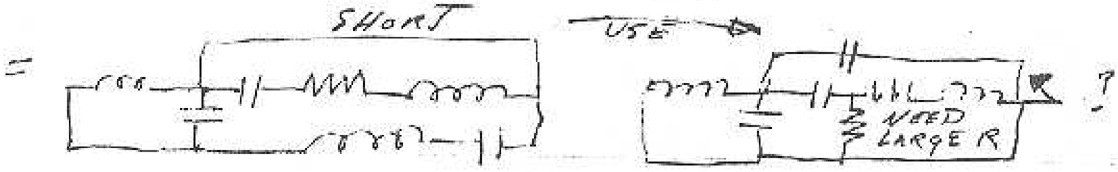


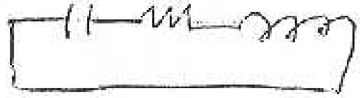


90MF + 40 = 25MF

equivalent circuits $Z = \frac{E}{I}$ (2)



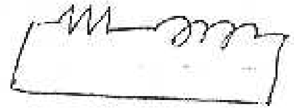




need Q of 20 if possible

Bandwidth at 60 CPS = 3 CPS

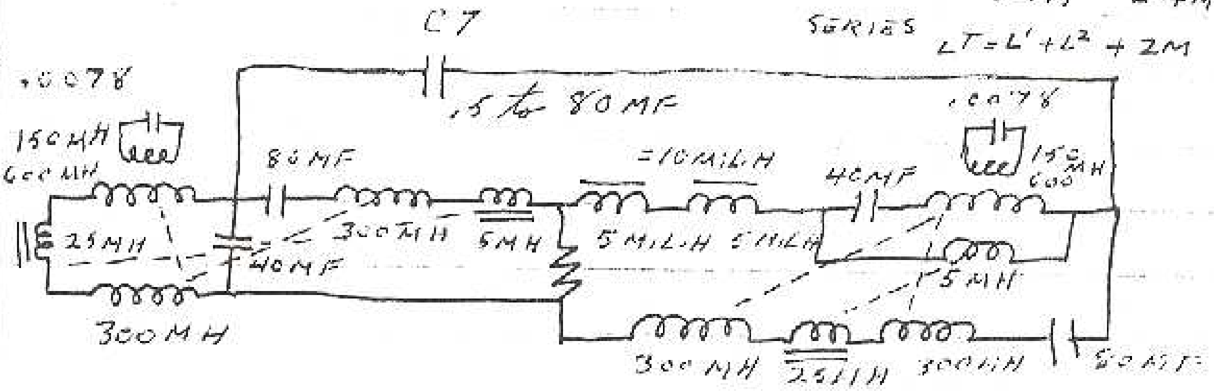
inductances in series add



mutual inductance $M = \frac{L_A - L_B}{4}$

coupled inductance Parallel $L^T = \frac{1}{\frac{1}{L^1+M} + \frac{1}{L^2+M}}$

SERIES $L^T = L^1 + L^2 + 2M$



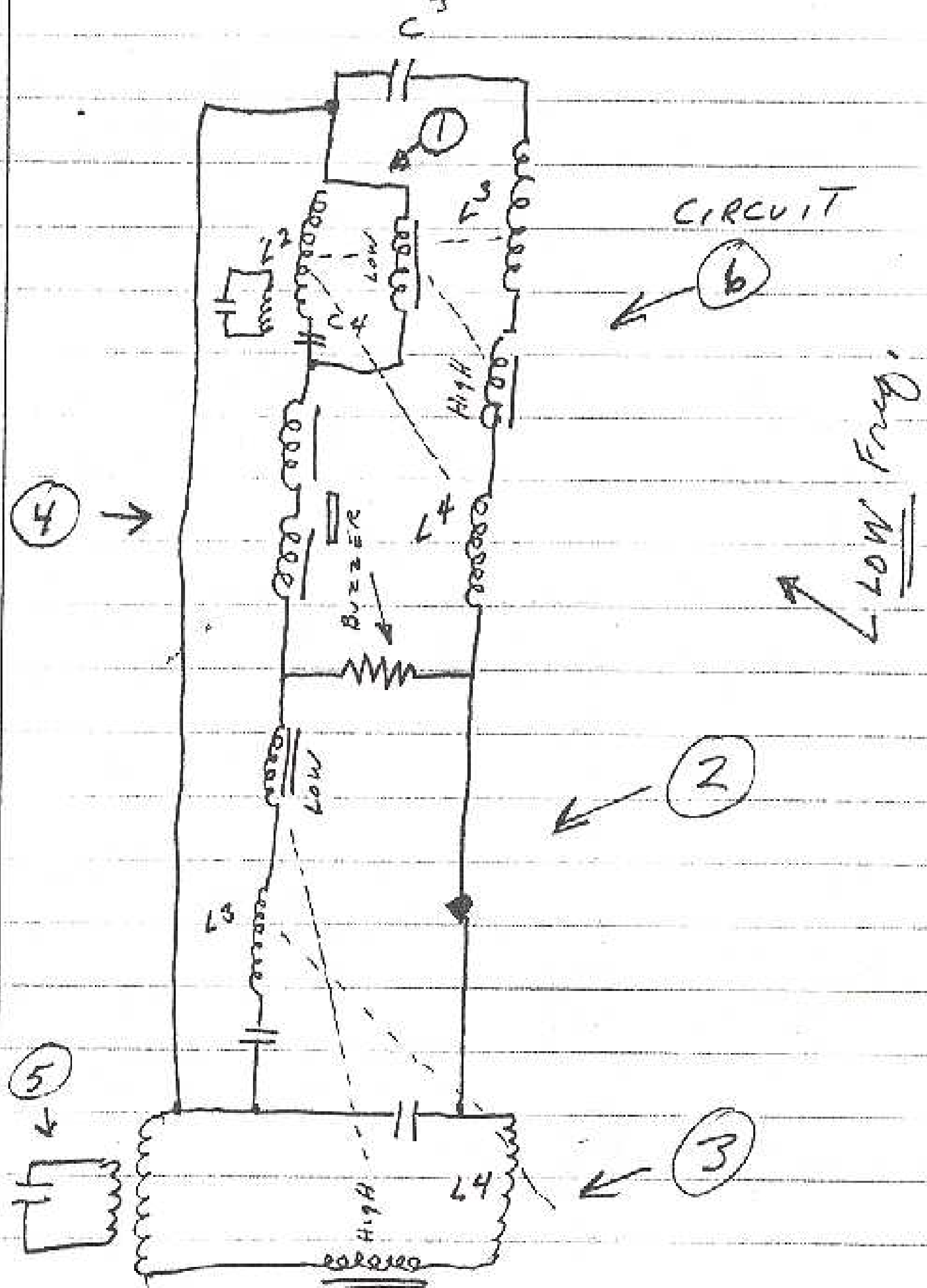
"equivalent circuit"

Dec-23-77

J. J. Hallinan

6 circuits defined for analysis ✓ ③

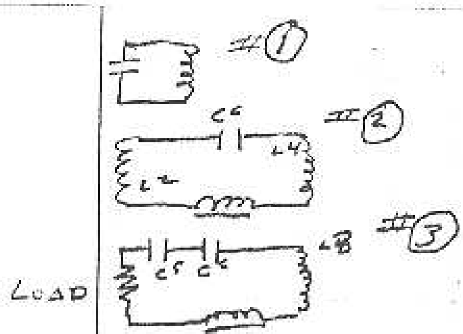
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J.G



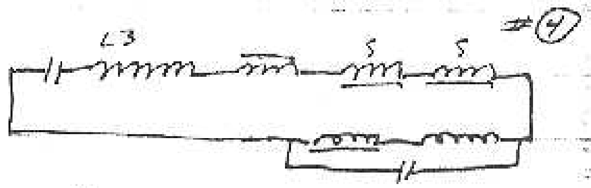
12-22-77
J.G. Gallimore

six interacting circuits in Hendershott device!

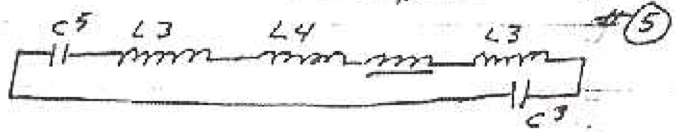
(4)



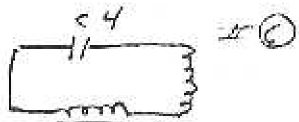
Parallel Resonance

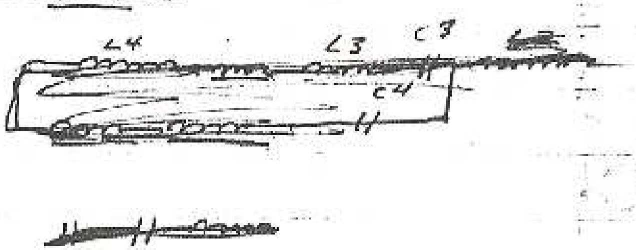


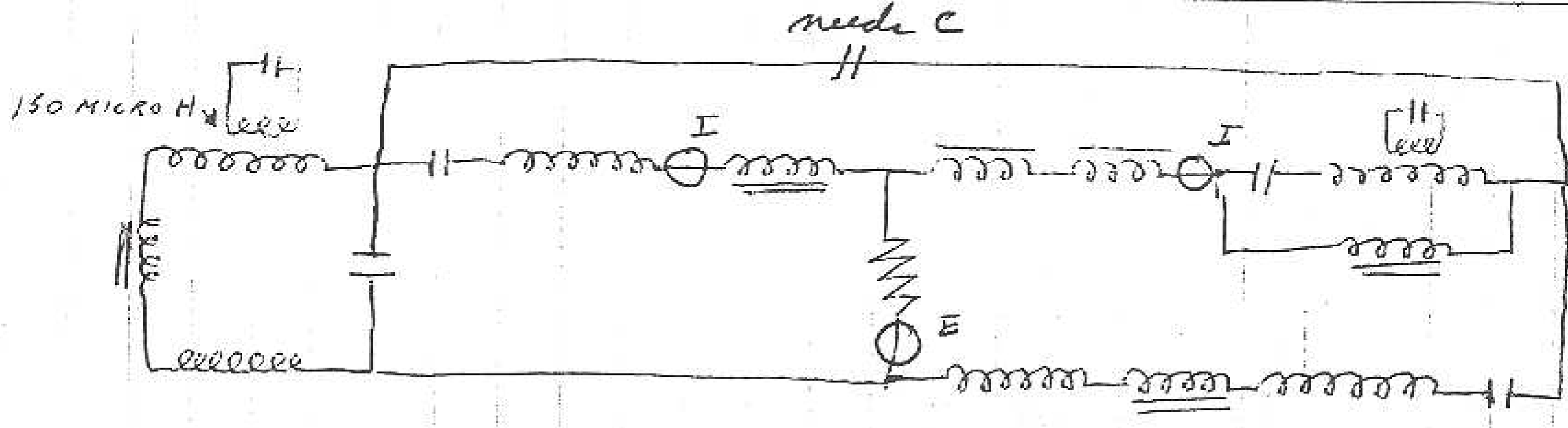
5-Parallel



series resonance

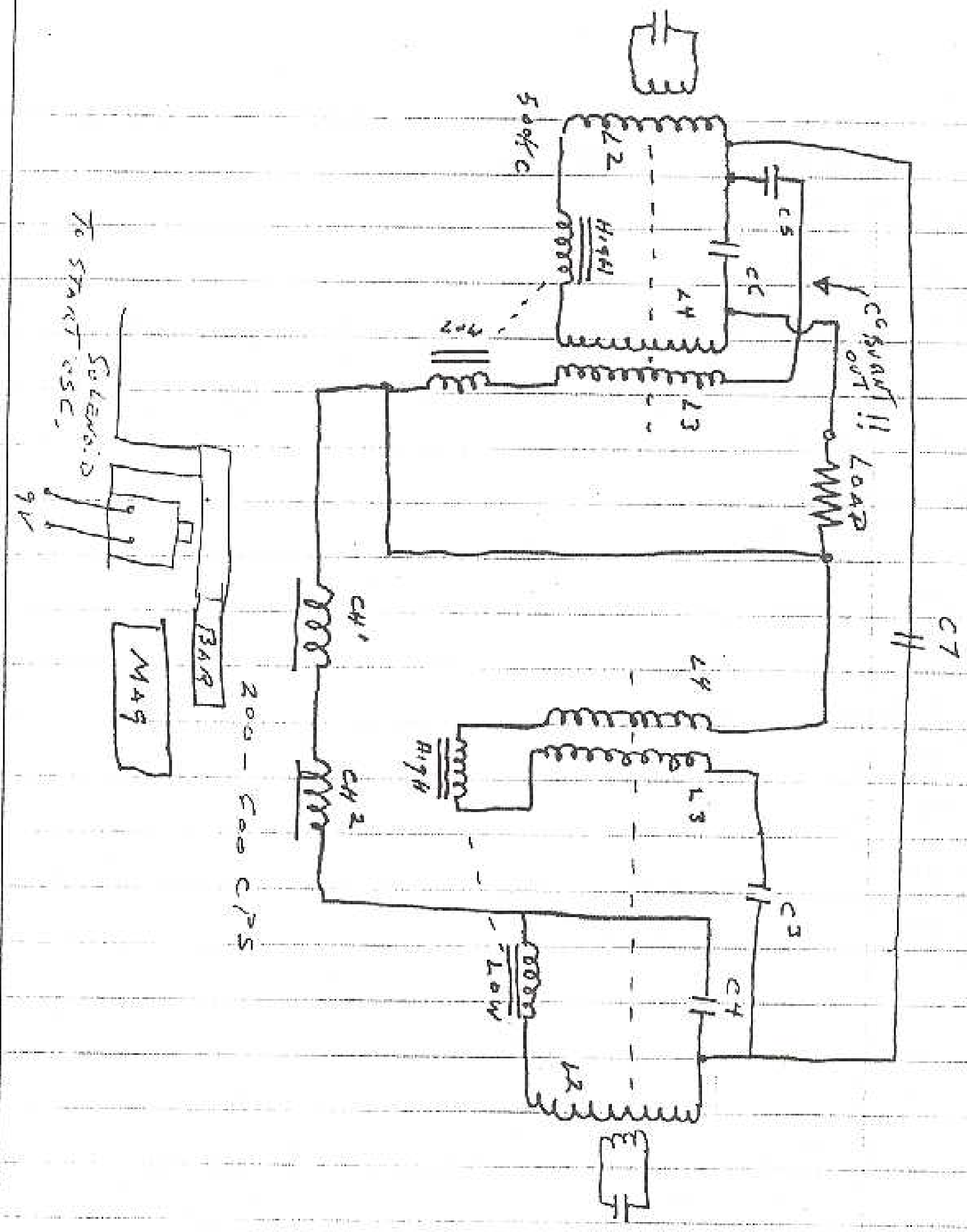






at resonance, the circulating I is immense (parallel circuits)

12-22-77
J.G.


To START OSC.
SOLENOID
9V
BAR
MAG
200-600 CPS
CH1
CH2
500KC
L2
HIGH
C5
L4
L3
LOAD
C7
C3
C4
LOW

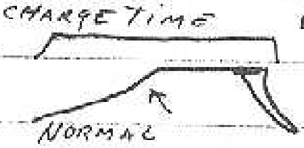
$L1 - 14^{T}$ #28 — 150 MICRO HENRIES

$L2 - 64^{T}$ #24 — $5\ {}^{15}/_{16}$" DIA — 600 APPROX M.H.

$L3 - 24^{T}$ #20 — 300 APPROX M.H.

$L4 - 24^{T}$ #20 — 300 " "

C1 .0078 X 150 M.H. = 500 KC



C2 .0078

C3 40MF

C4 40MF

C5 80MF

C6 40MF

T^{1} LOW — 5 M.H

T^{1} HIGH — 25 M.H

T^{2} LOW — 5. M.H

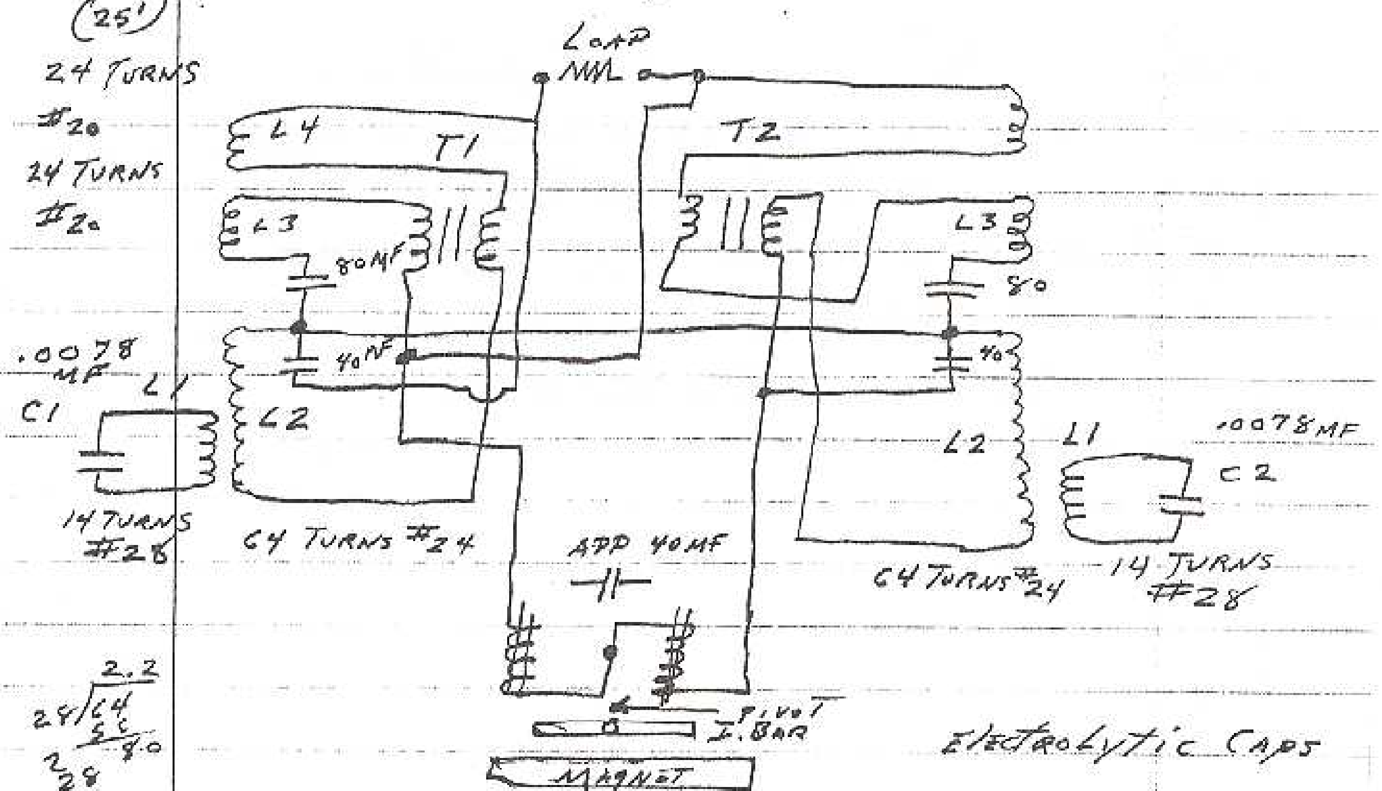
T^{2} HIGH — 25 M.H

S^{1} — 5 milli H

S^{2} — 5 milli H.

Set to 60 CPS resonance for pickup + output use.

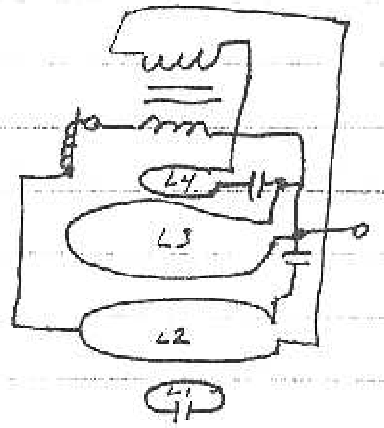
Hendershot gen. Resonant 500KC



2.2
24)64
48
16 8.0
2
28
3
84

ELECTROLYTIC CAPS

T1-T2 Vertical oscillator transformers
5:1 turns ratio
5:1 Voltage Boost



solution: solenoid is connected to rear of other solenoid.
or: out of phase.
one +, other − at freq.
theory: Bar ~~change~~ changes magnetic lines of force by movement as it is interposed & changing lines of force gen. in coils.

raising "Q" raises impedance

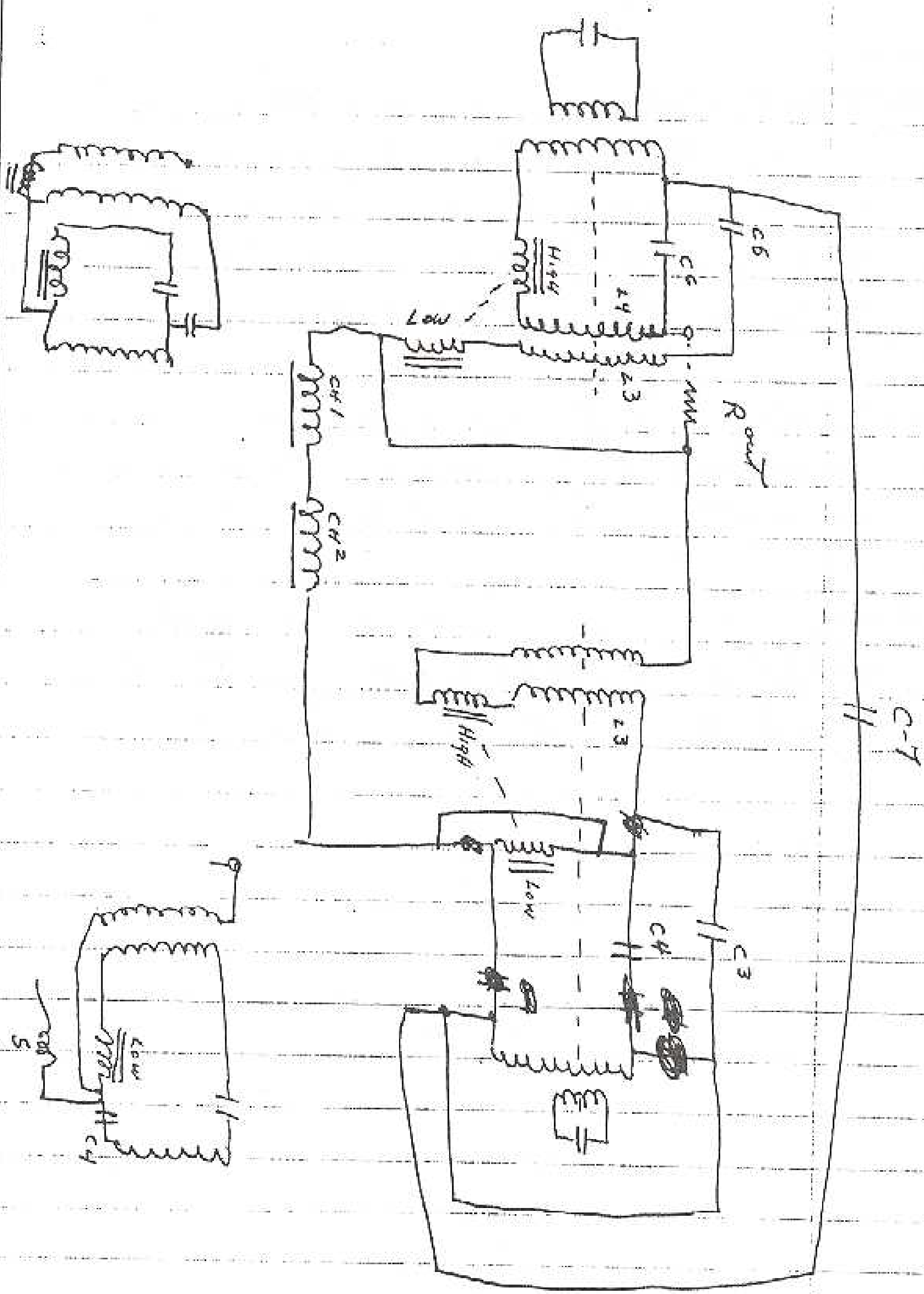
resonance – the freq. cap. + inductance reactances =.

60 resonance, 12CPS bandwidth = 38 Q

 Shunt R – Small R reduces Q –

Use audio freq. gen. to find resonant freq.

Use with meter in circuit


C-7
CH 1
CH 2
R out
Low
High
C4
C3

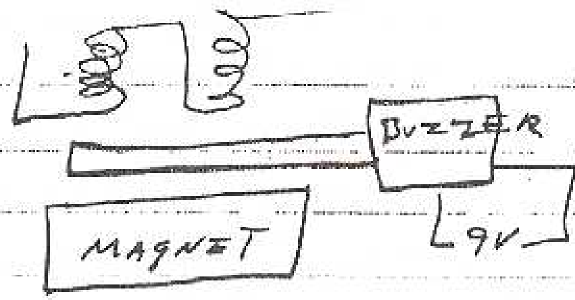
Dec-20-77
JG.

statement:
~~Questions~~ Interruption oscillation of a magnetic field of the permanent magnet will generate changing lines of flux and will generate electrical force in the solenoid coils.

Question: Is the permanent magnet supplying the power for the entire circuit — drain of power from.

Question: or is it like a generator (Rotary) which uses permanent magnets to create a source to interrupt.

Dec. 21-77



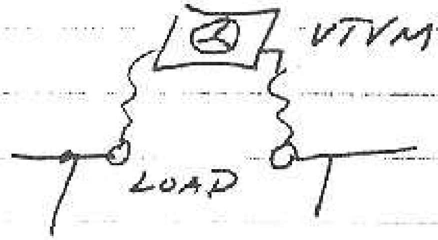
artificial input for max. design.

#1 Install 9V Batt + Buzzer to Iron bar to Vibrate.

#2. measure output Voltage + amperage.

#3. change coils for max. output performance.

#4. try to eliminate Battery + buzzer.



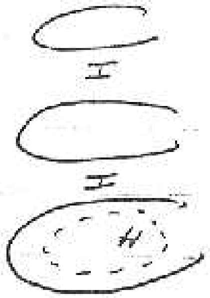
output should be more than energy in!

#5 add core to coils to max. output.

#6. check - Vary capacitance to max. output.

or: mate with "free" radio or oscillator!
Radio shack metal detector has 500 Kc coil
+ transformer. (replace buzzer with coil)

DEC-22-77
J.G.



Inductance between coils matched for min. loss + MAX. circuit freq.

Hysterisis and core matched for max transmission + min. loss. (absorbtion)

capacitators matched for max energy and circuit resonance.

Transformers matched for max. resonance of freq. and min loss.

Wiring losses: shielded except where inductance to other parts helpfull,

gain: of coils, transformer must be matched for efficiency VRS. proper gain.

feedback of coils must be matched for proper phase, freq.

If a circuit is exactly balanced, then any energy drawn off will be a drain and eventually stop oscillation. therefore the need for an outside addition of energy to raise circuit efficiency to above the balance of loss + sustained osc. The surplus is enhanced and can be drawn off.

Inductance: when the current decreases, a coil trys to hold it up.

Dec-22-77
JG

If circuit losses in the Hendershot device is reduced by appropriate shielding, the Hysterises affect will probably be enhanced by not having to lose that energy. [lose some interaction]

If some outside phenomena is occuring - then shielding will decrease the affect.

end result: it must be tried.

The magnet is to start adding energy to the circuit - and during oscillation - (interruption) overcome loss.

The energy stored in the capacitators will last several oscillations or more depending on the energy stored and the "capacity" to store.

note: use large capacitators.

Energy also is stored in coils through inductance, capacitance. large coils are more efficient than small coils.

moraye don tubes use to minimize loss.

Hysterisis affect. Dec-22-77
J.G.

energy stored in a coil (resonant-capacitance) and particularity the core where inductance is slow to dissapate:

can be used at a resonant frequency not shorter than the time of dissapation to sustain a oscillation frequency.

It is necessary to first add energy to saturate the core, thereafter a sustaining affect at the proper frequency can be had. If the frequency is shorter than a sustaining frequency — a small amount of energy can be added to the seperate oscillations.

The frequencies here are in relation to the inductance and circuit and are a narrow band just above the resonant frequency.

The collapse of a electrical field has a tendency to continue in the reverse polarity. This affect takes advantage of that phenomena and energy stored. The reverse polarity of oscillation meets the proper polarity already started (energy).

Dec. 22-77

J.G. Galliend

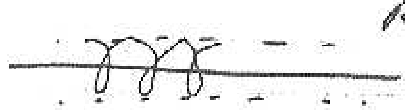
maxwell PP 461 etc.

Hendershot - P. 501

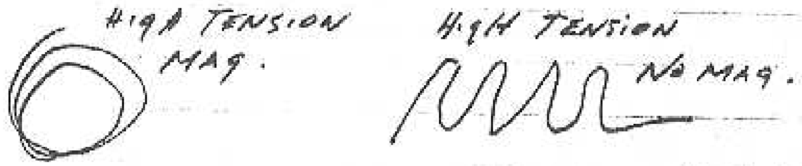
Jan-9-78
J.G.

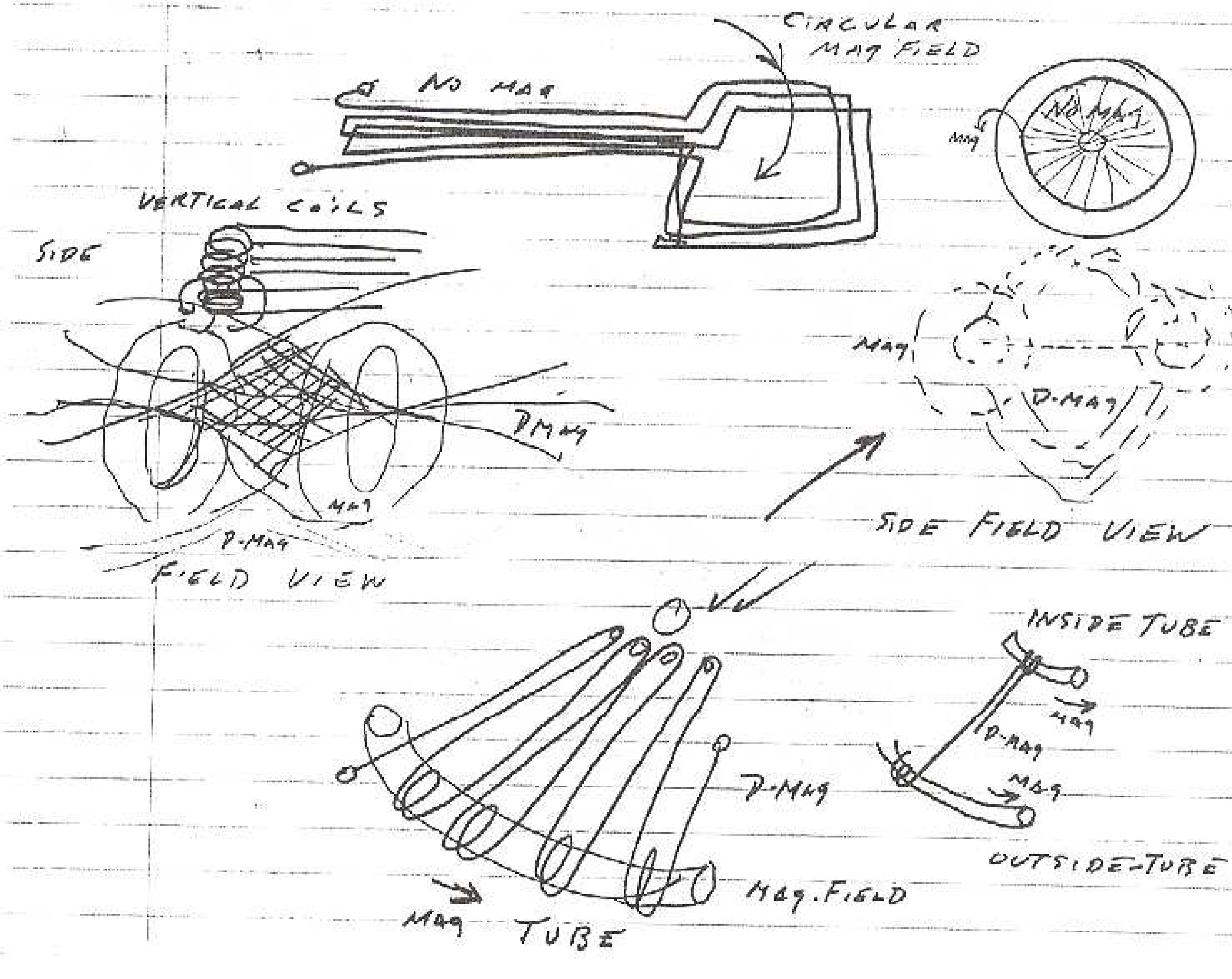
diamag - P. 508

Synergy - P. 519



Reaction (Ether with E) creates magnetic.

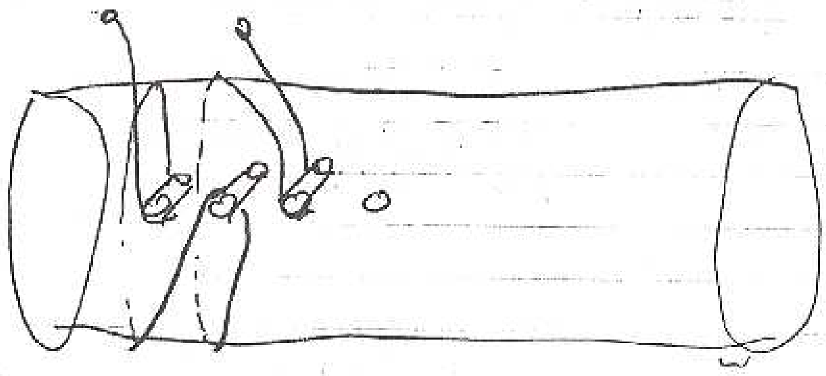


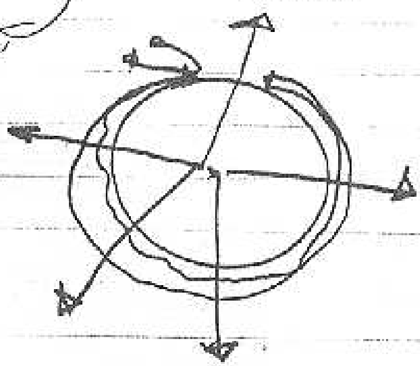


Jan - 9 - 78
J.G.

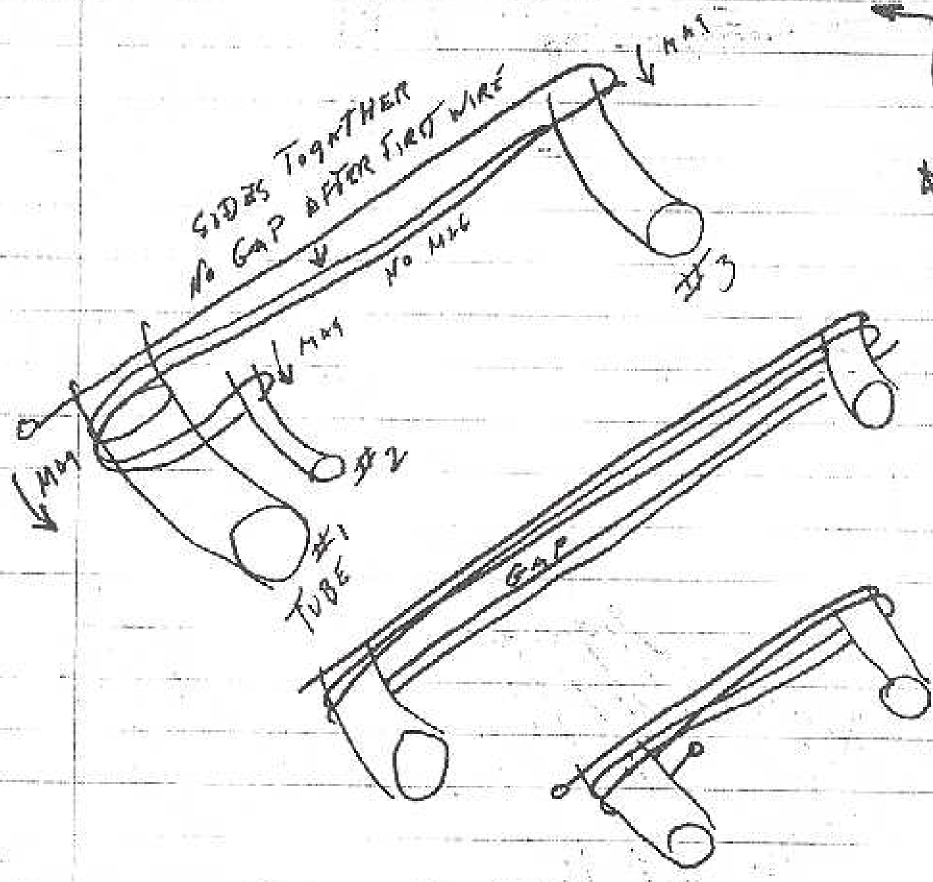


D-MAG COIL





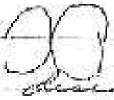
D-MAG
UNI-DIRECTIONAL



Ways to Neutralize Source — Jan 16, 78
J. G.

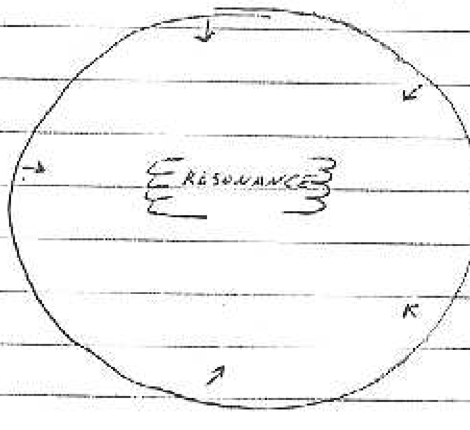
The "size" of coil is 5 5/8" or mag-freq.

The "intensity" of the magnetic field is above a certain needed intensity, so that interruption absorbs more than a "normal" loss system loses through solenoid.

Basket weave means "more" length, and more exposed surface area for mag. field. (Cuts also) Wider  and current cancellation occurs — may design in "sine" 
"4" dowels may be too small - but found best in research or calculations.

coils at freq. distance from magnet and each other

W-SZ = AWG# of windings
SZ = dia of coils
B'KT = Basket weave
G' = Gravity
M'S = magnet "size" and intensity
D = distance coils from magnet



MATH MODEL

← coil represents gravity (terrestial mag. field) with arrows representing direction and intensity of fields.

Jan 16, 78
J. G. [illegible]

coil conductor: 3-6-78

J.G.

the skin depth may be considered equal to conductor thickness for resistance calculations.

There obviously exists a desired size of conductor for a given frequency - if - max absorbtion is a goal!!

Several years ago, my discovery that a magnetic field has a "frequency", and all magnetic fields "identical" in the "same" frequency (5 3/4" wavelength) has obvious direct application in the hendershott oscillating circuit.

The magnetic pickup via inductance provides the needed energy to over-come losses and sustain the load.

I knew that little discovery would be important some day!

J.G. Hallford

height of device 3-6-78
J.G.

for max absorbtion, the Hendershot device should be 1/4 of a wavelength off the Earth!

frequency going from one medium to another (free space)

1/4 wavelength minimizes loss.

Height is then 1.4 inch + 6/32" (3/16")

total 1" + 14/32"

$$
\begin{array}{r}
1\frac{14}{32} \\
+\,1\frac{14}{32} \\
\hline
=2\frac{28}{32}
\end{array}
\quad \text{or } 2\tfrac{3}{4}" + \tfrac{2}{32} \quad = \tfrac{1}{2}\lambda
$$

can be Height of coil - or full wavelength.

coil spacing. 3-6-78

two coils or conductors in proximity have a maximum of radiation when the distance is one half the wavelength, (between)

The Hendershot coils should be at ½ wavelength for max. absorbtion.

if the circuit is not balanced, a net ground current exists.

Ground currents *must* be very important to the Hendershot device.

needs math analysis.

VVV a *zero* or *low impedance* seems to be the circuit ideal for tapping earth currents.

3-6-78
J. G. Gallimore

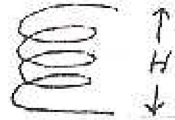
magnetic dipole loops

3-6-78
J.G

see pp. 222-223 <u>ants.</u> transmission lines

Volumetric antennas with a Volume AH

N-TURNS



KA*

capacitance can be calculated!

~~[illegible]~~

<u>must</u> be <u>Very</u> important
needs engineer!

PP 237

if a structure, upon scaling by some ratio τ becomes equal to itself, it will have the same properties at frequencies f and τf.

ground image ! 3-6-78
J.G

a coil or circle parallel to the Earth (vertical orientation) has a "image" pattern from the Earth.

The radiation pattern (emission) is identical with the pattern of the radiator plus the image in free space.

The impedence is half of the antenna plus image dipole impedence.

Half of the impedence of such a device must exist on each side of the Ground plane (Earth being dividing line).

The dielectric constant of the Earth in varying areas can increase or decrease the image excitation and yield a phase shift.

an artificial or extra ground plane may be employed to counteract regional changes. (earth dielectric constant)! example: corner reflector!

3-6-78
J.G. Gallimore

March-3-78
J.G.

Hendershot device :

The secret of the Hendershot device was the capacitator (.0078 MF) and the coil was resonant to the magnetic frequency instead of the circuit low frequency.

This induced energy into the capacitator/coil resonant circuit. When charged it would hold — being of high frequency until the low frequency inductance circuit discharged or oscillated.

Then the cap/coil would give a fast discharge and instantly recharge — while holding this charge until the next discharge; as intensity of charge grew as pressure.

The net result is a High Boost circuit!

3-7-78

J.G. Gallimore

3-7-78
V.G.

any device depending on form or shape in a radio frequency, microwave, or other frequency will have an impedance depending on the physical size of the device or components thereof. (Waveguides etc)

The use of a physical device having a "size" characteristic of five and three quarter inches ± ½", will have a impedance matched to a magnetic frequency.

The 5¾" or 14.6 centimeter wavelength and its harmonics become important when resonance, impedance, or size is used to gather and use such frequencies.

The physical parameters of capacitators, coils, chokes, etc, determine it's electrical values and use. This patent is intended to protect a size component/parameter where certain electrical frequencies are a result; and can be used.

3-7-78
J. G. Gallimore

/

3-7-78
J.G.

DIPOLE ↘ The "proper" impedance for a magnetic dipole (or form utilizing) seems to be opposite the Electrical impedance.

Where electrical devices (antennas etc) want max impedance in ohms, the magnetic dipole wants the absolute <u>minimum</u> of impedance. (Zero)

All devices are minimum impedance designed for the closest impedance match. (free space = 377 ohms, M = 0)

It seem like a minus 377 ohms exists like ground plane antennas and a magnetic impedance of Zero is a balance point.

3-7-78
J.G. Gallimore

3-7-78
J. G.

55 Poles



coil size dia.



SIDE
COIL

2/8 and 46/8 Ratio 1/23

if ~~Double~~ DIA/Pole = 5 3/4" Then 5 3/4 × 23 = 132.2"
or: 11' 2" DIA.

```
  46
  23
 138
 92
8/1058 eights
  8
  25
  24
   18
   16
    2

     11
12/132.2
   12
   12.
```

A. The size of the poles are critical.
B. The Distance between the wires are critical.
C. The size of poles determine size of coil.
D. The Diameter of coil determines size of poles.
E. Side Windings are 1/4 wavelength (or 1/2) (2 3/4" or 1 5/16)
F size of wiring 1/4 wavelight (1 3/16) or 1/8 7 (19/32") over 1/2"

3-7-78
J.G.

freq.

5 3/4" = 14.6 centimeters
or 2.4 gigacycles approx

many frequency !!

1/2 freq. harmonic = 240 megacycles

[illegible] 2 × harmonic or ; ?

3-7-78
J.G. [illegible]

3-12-78
16.

Impedence induction of Gravity

any coil tends to "Hold" up current in a oscillating circuit. (standard electronics) In a low frequency circuit, the time of change of polarity is such that the current enhancing affect of the coil can reach a maximum of efficiency.

(This freq. depends on individual coil)

However, a coil has a impedence relative to high frequencies and is resonate to some small band much higher than the low freq. oscillation where current is maximum

The coil at low freq. current maximum will *also* pick up high resonant freq. by impedence and *add* energy to the circuit.

Stray Radio-frequencies are small and Will amount to microvolts/microamps only — but the Gravitic field of the circuit being oscillated at a *resonant* frequency can *add* considerable energy as well as The induction of the Earth field.

The *resonance* of such a circuit must be *right* for this to happen.

Energy

sept. 17, 78
J. G.

The Moray and Hendershott devices both included a (1) coil where energy "pickup" was obtained, and (2) a means of oscillation resonant to that pickup.



and (3) a "ground" on the device!

The "excited" coil (1) excites the coil (2) which feeds back to excite coil (1) which .... sustains oscillation.

The questions relevant are;

(A) how is coil (1) excited initially.

(B) Where is the supposed extra energy derived from that overcomes conservation of energy that would cause eventual damped oscillation to cease.

If: Either Rieck, Hendershott, or Moray achieved a working system model then extra energy must be available through some means, and conservation of energy is preserved, yet still true in damping "potential".

sept. 17, 78
J. G. Gallimore